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Exploration of Financial Accounting: A Compilation of Individual Case Studies

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EXPLORATION OF FINANCIAL ACCOUNTING:
A COMPILATION OF INDIVIDUAL CASE STUDIES

by
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A thesis submitted to the faculty of The University of Mississippi in partial fulfillment of the requirements of the Sally McDonnell Barksdale Honors College.

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ABSTRACT
ALLISON GAERKE: Exploration of Financial Accounting: A Compilation of Individual Case Studies
(Under the direction of Dr. Victoria Dickinson)

This thesis contains twelve accounting-related case studies completed in Accounting 420: Independent Studies, a two-semester thesis course taught by Dr. Victoria Dickinson. For most cases, students were given access to case materials that provided brief descriptions of real companies along with the companies' financial statements and related footnotes. The cases also provided conceptual, procedural, and analytical questions for students to answer; completing a case study entailed answering the questions selected by Dr. Dickinson and writing a brief introduction to the case.

Students were given time in class to work in small groups to start answering the case questions. Students used their accounting knowledge, the case materials, their accounting textbooks, and, occasionally, online resources to answer the questions. Once the allotted class period ended, students completed the remainder of their cases on their own, wrote the brief introductions, and applied appropriate formatting. Dr. Dickinson and her teaching assistant then provided feedback for improvement. Through this process, I enhanced my financial accounting knowledge, strengthened my critical-thinking abilities, and developed my communication skills. Furthermore, I learned that financial accounting is a complex, fascinating topic that will require extensive exposure to real-world scenarios to master.

PREFACE

The accounting thesis course truly helped me develop both as an accounting student and a future professional. For instance, before I started the course, I had never looked at a company's financial statements. I had learned how to prepare an income statement, balance sheet, and statement of cash flows in my accounting classes, but I had not actually viewed official statements prepared by real companies. At first, I was intimidated by the statements because I did not realize how long some of the footnotes would be. It took me awhile to get used to combing through the footnotes, looking for information that tied back to specific pieces of the statements. By the time I finished my last case, I felt pretty comfortable reading and understanding financial statements and footnotes.

The cases also helped me strengthen and expand my understanding of accounting processes, concepts, and tools. I obtained practice recording various aspects of credit sales, calculating depreciation under different methods, and performing debt calculations when the fiscal year-end is not December 31st. While I already had some experience with these processes from my other accounting classes, the additional exposure helped reinforce my knowledge. I was also introduced to new concepts pertaining to the method of accounting for governmental grants, the removal of unrealized pre-tax gains when securities are sold, and the differences between IFRS and GAAP in recording R&D costs. Additionally, for the first time, I learned about a data analytics tool through online research.

Completing the cases also helped me begin to develop my Excel skills. I had not really worked with Excel much at all until I took the thesis course. I was able to practice creating tables, using formulas, applying accounting formats, and pasting Excel information into Word. In addition, I spent quite a bit of time formatting the cases to ensure that they looked professional, which greatly enhanced my reporting skills.

The thesis course also helped me develop my social skills. Before taking the course, I had not had much experience with accounting group work – I was used to working on problems individually. My communication skills were strengthened because I often had to successfully express my perspectives on unfamiliar concepts to students I did not know very well. This environment helped me learn how to form my thoughts into coherent, intelligent ideas to share with my peers. Also, by working with other students, I was able to hear various perspectives about accounting concepts, which pushed me to expand my own knowledge and grow academically.

I am confident that I will be able to apply the knowledge and skills I have acquired through the thesis course in my future career as a public accountant. By examining various facets of financial reporting, I have a more accurate understanding of how the different audit areas affect the financial statements that the end users see. This will allow me to perform better testing when I become a public accountant. Additionally, if I ever move into a corporate accounting role in which I am tasked with preparing financial statements, I will be better equipped to do so since I was exposed to various companies' financial statements throughout the course.

By having practice performing calculations, recording journal entries, and posting items to T-accounts, it will be easier for me to understand my clients' work and determine the origination of any errors. Additionally, if clients and/or coworkers need to discuss unique topics with me – such as accounting for governmental grants or removing pre-tax gains when securities are sold – I will hopefully already have a base foundation of knowledge from the thesis course so that I will not have to learn everything from scratch. Furthermore, with data analytics becoming such an important aspect of accounting, my experience performing research on a data analytics tool will help me perform similar research in the future if necessary.

The development of my Excel skills will also play a crucial role in my career as a public accountant. By having some familiarization with creating financial statements/tables, using formulas, and applying formatting, I will hopefully be able to catch on quickly to more advanced Excel tasks. Also, by having quite a bit of practice preparing case studies that look professional, I will be able to use that skillset to help me write effective emails, reports, and other documentation.

Lastly, but most importantly, the social skills I gained from the thesis course will greatly benefit my interactions with my clients and coworkers. I will be able to utilize my experiences to work effectively on teams, communicate successfully with people I do not know very well, and appreciate the various perspectives I am likely to hear. Overall, I am truly grateful for the accounting thesis course, and I am excited to see how it impacts my future.

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Case One: Home Heaters

Introduction

This case revolves around the accounting choices of two home heating companies in Colorado for the year 20XI, Glenwood Heating, Inc. and Eads Heater, Inc. For most of 20XI, both companies completed the same activities and accounted for their activities in an identical manner. On December 31st, the companies recorded their end-of-year transactions according to management decisions, which resulted in the companies using different accounting methods.

To be able to prepare Multistep Income Statements, Statements of Retained Earnings, and Classified Balance Sheets for Glenwood Heating, Inc. and Eads Heater, Inc., I recorded each companies' first-year transactions and created a single trial balance (Appendix A); I then recorded end-of-year transactions and prepared a trial balance for Glenwood Heating, Inc. (Appendix B) and Eads Heater, Inc. (Appendix C). The trial balance information helped me prepare Glenwood Heating, Inc.'s financial statements (Tables 1 – 3) and Eads Heater, Inc.'s financial statements (Tables 4 – 6). Through the preparation of each company's financial statements, I was able to see how the companies' accounting choices affected their financial positions. For example, Glenwood Heating, Inc.'s Net Income of $92,742, Retained Earnings of $69,592, and Stockholders' Equity of $ 229,542 were all higher than Eads Heater, Inc.'s Net Income of $70,515, Retained Earnings of $47,315, and Stockholders' Equity of $207,315; thus, I would choose to invest in Glenwood Heating, Inc.

While this case was challenging, it greatly helped me expand my accounting understanding and knowledge. I will be able to use the skills acquired from this case to complete several tasks in the future. For example, this case has given me an opportunity to improve my Excel skills, and I will be able to more efficiently input/organize data and prepare financial statements in the future. If I work as a management accountant, I will understand how to compare accounting methods, like I did in this case, to help my company choose the method that provides the most benefits to its financial position. Overall, the various skills I acquired from this case will greatly benefit my future career as an accountant.

Table 1. Glenwood Heating, Inc. Multistep Income Statement

GLENWOOD HEATING, INC. Multistep Income Statement For the Year Ended December 31, 20XI			
Sales			$ 398,500
Cost of Goods Sold			177,000
Gross Profit			221,500
Operating Expenses			
Selling Expenses			
Bad Debt Expense	$ 994		
Depreciation of Delivery Equipment	9,000	$ 9,994	
Administrative Expenses			
Rent Expense	16,000		
Depreciation of Building	10,000	26,000	35,994
Income from Operations			185,506
Other Expenses and Losses			
Other Operating Expenses		34,200	
Interest on Notes Payable		27,650	61,850
Income Before Income Tax			123,656
Income Tax			30,914
Net Income for the Year			$ 92,742

Table 2. Glenwood Heating, Inc. Statement of Retained Earnings

GLENWOOD HEATING, INC. Statement of Retained Earnings For the Year Ended December 31, 20XI	
Retained Earnings, Jan 1 20XI	$ -
Add: Net Income	92,742
Less: Dividends	23,200
Retained Earnings, December 31 20XI	$ 69,542

Table 3. Glenwood Heating, Inc. Classified Balance Sheet

GLENWOOD HEATING, INC. Classified Balance Sheet As of December 31, 20XI			
Assets			
Current Assets			
Cash		$ 426	
Accounts Receivable	$ 99,400		
Less: Allowance for Bad Debts	994	98,406	
Inventory		62,800	
Total Current Assets			$ 161,632
Long Term Investments			-
Property, Plant, and Equipment			
Land		70,000	
Building	350,000		
Less: Accumulated Depreciation	10,000	340,000	
Equipment	80,000		
Less: Accumulated Depreciation	9,000	71,000	
Total Property, Plant, and Equipment			481,000
Intangible Assets			-
Total Assets			$ 642,632
Liabilites and Stockholders' Equity			
Current Liabilities			
Accounts Payable		26,440	
Interest Payable		6,650	
Total Current Liabilities			33,090
Long-Term Liabilities			
Notes Payable			380,000
Total Liabilities			413,090
Stockholders' Equity			
Retained Earnings		69,542	
Common Stock		160,000	
Total Stockholders' Equity			229,542
Total Liabilities and Stockholders' Equity			$ 642,632

Table 4. Eads Heater, Inc. Multistep Income Statement

EADS HEATER, INC. Multistep Income Statement For the Year Ended December 31, 20XI			
Sales			$ 398,500
Cost of Goods Sold			188,800
Gross Profit			209,700
Operating Expenses			
Selling Expenses			
Bad Debts Expense	$ 4,970		
Depreciation of Delivery Equipment	20,000		
Depreciation of Leased Equipment	11,500	$ 36,470	
Administrative Expenses			
Depreciation of Building		10,000	46,470
Income from Operations			163,230
Other Expenses and Losses			
Other Operating Expenses		34,200	
Interest Expense		35,010	69,210
Income before Income Tax			94,020
Income Tax			23,505
Net Income for the Year			$ 70,515

Table 5. Eads Heater, Inc. Statement of Retained Earnings

EADS HEATER, INC. Statement of Retained Earnings For the Year Ended December 31, 20XI	
Retained Earnings, Jan 1 20XI	$ -
Add: Net Income	70,515
Less: Dividends	23,200
Retained Earnings, Dec 31 20XI	$ 47,315

Table 6. Eads Heater, Inc. Classified Balance Sheet

EADS HEATER, INC. Classified Balance Sheet As of December 31, 20XI			
Assets			
Current Assets			
Cash		$ 7,835	
Accounts Receivable	$ 99,400		
Less: Allowance for Bad Debts	4,970	94,430	
Inventory		51,000	
Total Current Assets			$ 153,265
Long Term Investments			-
Property, Plant, and Equipment			
Land		70,000	
Building	350,000		
Less: Accumulated Depreciation	10,000	340,000	
Equipment	80,000		
Less: Accumulated Depreciation	20,000	60,000	
Leased Equipment	92,000		
Less: Accumulated Depreciation	11,500	80,500	
Total Plant, Property, and Equipment			550,500
Intangible Assets			-
Total Assets			$ 703,765
Liabilities and Stockholders' Equity			
Current Liabilities			
Accounts Payable		26,440	
Interest Payable		6,650	
Current Portion of Lease Payable		9,330	
Total Current Liabilities			42,420
Long-Term Liabilities			
Notes Payable		380,000	
Lease Payable		74,030	454,030
Total Liabilities			496,450
Stockholders' Equity			
Retained Earnings		47,315	
Common Stock		160,000	
Total Stockholders' Equity			207,315
Total Liabilites and Stockholders' Equity			$ 703,765

Case Two: Molson Coors Brewing Company

Introduction

This case mainly focused on the financial reporting methods of Molson Coors Brewing Company, a U.S. based enterprise providing high-quality beer to consumers in the United States, the United Kingdom, and Canada. This case required answers to important questions about income and income statement concepts. Also, analysis of several pieces of information was needed to determine why Molson Coors chose to present financial items in certain ways.

To answer the questions presented in this case, I had to interpret and analyze the various financial statements and notes that Molson Coors provided. These items included Consolidated Statements of Operations, which reported net income calculations, Consolidated Statements of Comprehensive Income, which showed computations of comprehensive income, and Consolidated Balance Sheets, which totaled and classified the company's asset, liability, and equity accounts. Besides analyzing these financial statements, I also read and interpreted the notes to fully understand the company's financial position and answer the case questions.

The skills I gained from this case will greatly benefit my future in accounting. For example, as an intern and first-year-employee, it will be easier for me to find important information among companies' financial statements and notes because of my experience with this case. Also, because I learned beneficial and insightful information about classified income statements, special items, and other income (expenses), my accounting knowledge has expanded. I now have a better understanding of the

practices of the profession, which will aid my journey to becoming a successful accountant.

A. What are the major classifications on an income statement?

The major classifications (elements) on an income statement are revenues, expenses, gains, and losses. A description of each major classification and examples of accounts within each classification are presented below:

1. Revenues: These are inflows of probable future economic benefits (assets) or settlements of probable future sacrifices of economic benefits (liabilities) in an accounting period that result from the sale of products or the performance of services. Sales revenue, rent revenue, and interest revenue are a few revenue items commonly listed on income statements.

2. Gains: These are increases in ownership interest/net assets (equity) that stem from peripheral transactions during the period. These exclude revenues and investments by owners. Examples of gains that appear on income statements include gains on discontinued operations and gains on disposal of investments.

3. Expenses: These are outflows of assets or incurrences of liabilities that result from the sale of products or the performance of services. Cost of goods sold, rent expense, and interest expense are some common examples of expense accounts reported in income statements.

4. Losses: These are decreases in equity that stem from peripheral transactions during the period, excluding expenses and distributions to owners. Examples of losses that

appear on income statements are losses on discontinued operations and losses from disposal of equipment.

B. Explain why, under U.S. GAAP, companies are required to provide "classified" income statements.

Under U.S. GAAP, companies are required to provide "classified" or multi-step income statements to classify revenues, expenses, gains and losses as operating elements (related to the principal operations of the company) or nonoperating elements (resulting from secondary activities of the company). Within the operating section of a classified income statement, sales/revenue, cost of goods sold, selling expenses, and administrative expenses are presented. Within the nonoperating section, other revenues/gains and other expenses/losses are presented.

Decision usefulness is an important aspect of GAAP, which explains why classified income statements are required. This type of income statement provides more detailed information so that users of financial reporting, mainly investors and creditors, can more easily evaluate companies' financial positions. This evaluation helps users decide how to most effectively allocate their resources.

C. In general, why might financial statement users be interested in a measure of persistent income?

Users might be interested in a measure of persistent income, which is income that a company continues to receive from one period to the next, because this measurement

can help investors see which income items will likely boost a companies' financial position again in the future. If users have a better awareness of continuing sources of income, they can more accurately predict a company's future prospects and determine what amount of resources they want to provide to that company.

D. Define comprehensive income and discuss how it differs from net income.

Comprehensive income is defined as the change in equity during a period that results from non-owner sources, such as investments by owners and distributions to owners. Comprehensive income is broader than net income; comprehensive income encompasses the revenues, gains, expenses, and losses that show up in net income. However, comprehensive income also includes the gains and losses that affect stockholders' equity but are not reported in net income. Examples include unrealized holding gains/losses on available-for-sale securities and certain pension plan adjustments.

E. The income statement reports "Sales" and "Net sales." What is the difference? Why does Molson Coors report these two items separately?

The term "Sales" refers to revenues a company earns through the sale of goods or performance of services while "Net Sales" refers to the amount of revenues a company still holds after deducting contra-revenue amounts—such as sales discounts and sales returns and allowances—and any excise taxes. Molson Coors reports "Sales" and "Net Sales" separately to show that it paid excise taxes, which are indirect taxes paid when a

company's product is sold. Coors will include this tax amount in the product's purchase price, but it is shown in the income statement to fully disclose the company's revenue situation.

F. Consider the income statement item "Special items, net" and information in Notes 1 and 8.

i. In general, what types of items does Molson Coors include in this line item?

For "Special items, net" Molson Coors includes expenses that are not representative of the company's central operations, such as atypical employee costs, unusual items, and asset abandonment losses. These items are included in the income statement to comply with the full disclosure principle under GAAP.

ii. Explain why the company reports these on a separate line item rather than including them with another expense item. Molson Coors classifies these special items as operating expenses. Do you concur with this classification? Explain.

Molson Coors presents these special items separately from other expense accounts because the company does not expect to incur these expenses in the future; Molson Coors wants present and potential investors and creditors to base their investing and lending decisions on the expenses that better represent the company's activities and will likely be incurred again in the future. I do concur with the classification of the special items as operating expenses because these items are not directly associated with

the production of Molson Coors' product, but they are incurred from carrying out day-to-day business activities. Therefore, they meet the definition of operating expenses.

G. Consider the income statement item "Other income (expense), net" and the information in Note 6. What is the distinction between "Other income (expense), net" which is classified as a nonoperating expense, and "Special items, net" which Molson Coors classifies as operating expenses?

"Other income (expense), net" refers to unusual gains and losses that do not coincide with Molson Coors ongoing operations while "Special items, net" are nonrecurring charges or benefits that do coincide with Molson Coors day-to-day activities. The items included in "Other income (expense), net"—such as gains on sale of non-operating assets and bridge facility fees—are not incurred from performing day-to-day activities. Also, while these items are unusual, they could occur again in the future. These two qualities explain why "Other income (expense), net" is classified as a nonoperating amount while "Special items, net" are classified as operating expenses.

H. Refer to the statement of comprehensive income.

i. What is the amount of comprehensive income in 2013? How does this amount compare to net income in 2013?

The comprehensive income attributable to Molson Coors Brewing Company is $760,200,000, and the net income attributable to the company is $567,300,000. The comprehensive income amount is $192,900,000 higher than the net income amount.

ii. What accounts for the difference between net income and comprehensive income in 2013? In your own words, how are the items included in Molson Coors' comprehensive income related?

The comprehensive income and net income amounts differ because comprehensive income is a broader measure that includes gains and losses not represented by the net income amount. For example, unrealized gains on derivative instruments and pension/other postretirement benefit adjustments are included in the comprehensive income calculation but are not included in the net income calculation. The comprehensive income items are related to each other because they all affect equity and are from non-owner sources. Each of the comprehensive income items stems from gains/losses or adjustments to accounts that no not affect Molson Coors' actual net income.

I. Consider the information on income taxes, in Note 7.

i. What is Molson Coors' effective tax rate in 2013?

Molson Coors' effective tax rate in 2013 is 12.8 percent. This is calculated as the 2013 income tax expense ($84,000,000) divided by the 2013 pretax income from continuing operations ($654,500,000), which are presented in Molson Coors' Consolidated Statements of Operations. The 2013 effective tax rate can also be calculated by totaling the statutory federal income tax rate, the state income taxes, the effect of foreign tax law and rate changes, the effect of unrecognized tax benefits, the effect of foreign tax rates, and the change in valuation allowance. Molson Coors shows this second form of calculating the effective tax rate in Note 7.

Case Three: Pearson PLC

Introduction

This case was centered around the 2009 credit sales of Pearson PLC, a British educational and publishing company. Because accounts receivable arise from credit sales, this case asked several questions about accounts receivable and contra accounts receivable items (allowance for doubtful accounts and allowance for sales returns). It is important to note that I follow Pearson's method of describing allowance for doubtful accounts as "provision for bad and doubtful debts" in my answers.

In this case, questions a. – e. were conceptual and sought general information about accounts receivable, contra accounts receivable items, notes receivables, and the approaches used to estimate uncollectible accounts receivable amounts. Questions f. – h. were process-based; these questions asked us to prepare several t-accounts/journal entries related to provisions for bad and doubtful debts, provisions for sales returns, and total (gross) trade receivables. In order to answer the questions, I heavily consulted Note 22 of the financial statements, which contained information about Pearson's trade and other receivables; I also analyzed pieces of the consolidated income statement and balance sheet.

Before I completed this case, I possessed only a general knowledge about accounts receivable and the related contra accounts. By defining key terms and preparing t-accounts/journal entries, I now have a deeper understanding of accounts receivable items. I can use my experience from this case to help me successfully analyze and record credit sale transactions during any future internships and professional careers.

A. What is an account receivable? What other names does this asset go by?

An account receivable is an oral promise made by a purchaser to pay for goods and services. These result from short-term extensions of credit (meaning the purchaser did not pay with cash) and are usually paid within thirty to sixty days. Accounts receivable are also known as trade receivables.

B. How do accounts receivable differ from notes receivable?

Notes receivable are short-term or long-term written promises from a purchaser to pay a set amount of money on a certain date, while accounts receivable are short-term oral promises without specific payment dates. Accounts receivable only result from buying goods/services on credit; notes receivable, however, can stem from both sales and financing transactions on credit. Additionally, notes receivable are often interest-bearing, while accounts receivable are not.

C. What is a contra account? What two contra accounts are associated with Pearson's trade receivables (see Note 22)? What types of activities are captured in each of these contra accounts? Describe factors that managers might consider when deciding how to estimate the balance in each of these contra accounts.

A contra account decreases an asset, liability, or owners' equity account on the balance sheet. Its balance is opposite of the normal balance of the account it is offsetting. The two contra accounts associated with Pearson's trade receivables are the provision for bad and doubtful debts and the provision for anticipated sales returns. The provision for

bad and doubtful debts account represents the beginning balance of the provision for bad and doubtful debts plus the amount of accounts receivable that Pearson estimated would not be collected minus the amounts that were actually written off because the company could not collect them. The provision for sales returns account represents the beginning balance of the provision for sales returns plus Pearson's estimate of sales returns minus the actual sales returns.

Managers might consider past estimates of sales returns when estimating the balance in the provision for sales returns account, and they might consider past estimates of uncollectible accounts receivable when estimating the balance in the provision for bad and doubtful debts account. They might then compare these estimates to actual past sales returns and actual uncollectible accounts receivable amounts to see if their estimating methods are sufficient. In addition, managers might adjust estimates based on current conditions and future forecasts.

D. Two commonly used approaches for estimating uncollectible accounts receivable are the percentage-of-sales procedure and the aging-of-accounts procedure. Briefly describe these two approaches. What information do managers need to determine the activity and final account balance under each approach? Which of the two approaches do you think results in a more accurate estimate of net accounts receivable?

The percentage-of-sales procedure involves estimating bad debt expense based on an estimate of the amount of credit sales that will be uncollectible. This provides a

“matching” of bad debt expense to sales. The aging-of-accounts procedure involves setting up an aging schedule that separates outstanding accounts receivable into age categories; a percentage is given to each age category to estimate the amount of accounts receivable that will be uncollectible.

Under the percentage-of-sales approach, managers need to forecast sales and the percentage of those sales that they think will be uncollectible. This percentage is then multiplied by the accounts receivable amount to obtain an estimate of bad debt expense. For the aging-of-accounts procedure, managers need to know the “age” of the accounts receivable and the estimated percentage of uncollectible amounts for each age category. To calculate the final balance of the provision for bad and doubtful debts account under both approaches, managers have to add the estimated bad debt expense and subtract the actual write off of bad debt from the beginning balance in the provision for bad and doubtful debts account.

Managers also use the write off of bad debts to calculate the final balance of gross (total) accounts receivable. Credit sales are added to the beginning gross accounts receivable balance, and cash collections, write offs of bad debt, and actual sales returns are subtracted to find the final gross accounts receivable balance. On the balance sheet, the final balances of the provision for bad and doubtful debts and the provision for sales returns are subtracted from the final balance of gross accounts receivable to get net accounts receivable. I think that the aging-of-accounts procedure results in a better estimate of net accounts receivable because the percentages used in this approach are based on past experience and the ages of receivables; under the percentage-of-sales

approach, the percentage used is based off of sales, so this method does not give an accurate representation of net accounts receivable.

E. If Pearson anticipates that some accounts will be uncollectible, why did the company extend credit to those customers in the first place? Discuss the risks that managers must consider with respect to accounts receivable.

Even though Pearson expects some accounts to be uncollectible, it likely extended credit to those customers to promote sales. In today's society, many purchases of goods and services are completed through credit sales. If Pearson chose to not extend credit to every at-risk customer, its credit policy would be too strict, and sales would decline greatly.

With respect to accounts receivable, managers must think about their cash flows. An increase in accounts receivable means that cash is not being increased. Cash can be invested and earn interest, while accounts receivable cannot. Since cash is the most liquid asset, it is important to have a certain amount of cash set aside to pay bills and other obligations. Also, managers cannot rely too heavily on accounts receivable; if a manager plans to pay obligations with the liquidation of accounts receivable, he needs to be aware that there is a very likely chance he will not collect the full accounts receivable amount.

F. Note 22 reports the balance in Pearson's provision for bad and doubtful debts (for trade receivables) and reports the account activity ("movements") during the year ended December 31, 2009. Note that Pearson refers to the trade receivables contra account as a "provision." Under U.S. GAAP, the receivables contra account is typically referred to as an "allowance" while the term provision is used to describe the current-period income statement charge for uncollectible accounts (also known as bad debt expense).

i. Use the information in Note 22 to complete a T-account that shows the activity in the provision for bad and doubtful debts account during the year. Explain, in your own words, the line items that reconcile the change in account during 2009.

Provision for Bad and Doubtful Debts (in £ millions)

	Beg. Bal. 72
a) 5	b) 26
c) 20	d) 3
	End Bal. 76

a) Exchange Differences
b) Income Statement Movements
c) Utilised
d) Acquisition through Business Combination

Figure 1. Pearson PLC Provision for Bad and Doubtful Debts T-Account

The change in the account in 2009 was caused by exchange differences, income statement movements, utilised amounts, and acquisitions through a business

combination. Pearson gained £5 million on its trade receivables when it translated its trade receivables from one currency into another; this is shown by a), which represents a decrease in the provision for bad and doubtful debts account.

When Pearson estimated its bad debt expense (also known as an income statement movement), the £26 million expense estimation increased the provision for bad and doubtful debts as shown by b). Pearson wrote off (utilised) £20 million of its trade receivables, which is shown by c) as a decrease in the provision for bad and doubtful debts account. Pearson acquired another business and its trade receivables in 2009; more trade receivables results in higher amounts estimated for bad debt expense, which explains the £3 million increase represented by d) in the provision for bad and doubtful debts account.

ii. Prepare the journal entries that Pearson recorded during 2009 to capture 1) bad and doubtful debts expense for 2009 (that is, the "income statement movements") and 2) the write-off of accounts receivable (that is, the amount "utilised") during 2009. For each account in your journal entries, note whether the account is a balance sheet or income statement account.

1) Bad and Doubtful Debts Expense (Income Statement Movements in £ millions)

Bad and Doubtful Debts Expense (Income Statement Account)	26	
Provision for Bad and Doubtful Debts (Balance Sheet Account)		26

2) Write-Off of Accounts Receivable (Amount Utilised in £ millions)

Provision for Bad and Doubtful Debts (Balance Sheet Account)	20
Accounts Receivable (Balance Sheet Account)	20

iii. Where in the income statement is the provision for bad and doubtful debts expense included?

The provision for the bad and doubtful debts expense is included in the Operating Expense line item in Pearson's income statement; the provision relates to trade receivables, which result from credit sales, a component of the company's principal operations.

G. Note 22 reports that the balance in Pearson's provision for sales returns was £372 at December 31, 2008 and £354 at December 31, 2009. Under U.S. GAAP, this contra account is typically referred to as an "allowance" and reflects the company's anticipated sales returns.

i. Complete a T-account that shows the activity in the provision for sales returns account during the year. Assume that Pearson estimated that returns relating to 2009 Sales to be £425 million. In reconciling the change in the account, two types of journal entries are required, one to record the estimated sales returns for the period and one to record the amount of actual book returns.

Provision for Sales Returns (in £ millions)

	Beg. Bal. 372
b) 443	a) 425
	End Bal. 354

a) Estimated Sales Returns
b) Amount of Actual Sales Returns

Figure 2. Pearson PLC Provision for Sales Returns T-Account

ii. Prepare the journal entries that Pearson recorded during 2009 to capture, 1) the 2009 estimated sales returns and 2) the amount of actual book returns during 2009. In your answer, note whether each account in the journal entries is a balance sheet or income statement account.

1) Estimated Sales Returns (in £ millions)

Sales Returns (Income Statement Account) 425

Provision for Sales Returns (Balance Sheet Account) 425

2) Amount of Actual Sales Returns Booked (in £ millions)

Allowance for Sales Returns and Allowances (Income Statement Account) 443

Accounts Receivable (Balance Sheet Account) 443

iii. In which income statement line item does the amount of 2009 estimated sales returns appear?

The estimated sales returns amount is included in the calculation of Sales in the income statement. This is because the estimated sales returns amount is a contra-revenue item, which means that it reduces gross sales down to (net) Sales.

H. Create a T-account for total or gross trade receivables (that is, trade receivables before deducting the provision for bad and doubtful debts and the provision for sales returns). Analyze the change in this T-account between December 31, 2008 and 2009. (Hint: your solution to parts f and g will be useful here). Assume that all sales in 2009 were on account. That is, they are all "credit sales." You may also assume that there were no changes to the account due to business combinations or foreign exchange rate changes. Prepare the journal entries to record the sales on account and accounts receivable collection activity in this account during the year.

Total Trade Receivables (in £ millions)	
Beg. Bal 1,474	
a) 6,049	b) 5,641
	c) 20
	d) 443
End Bal. 1,419	

a) Credit Sales
b) Cash Collections
c) Write Offs
d) Actual Sales Returns

Figure 3. Pearson PLC Total Trade Receivables T-Account

Pearson ended 2008 and started 2009 with £1,474 million of total (gross) trade receivables as indicated by the beginning balance in the t-account. Pearson earned £6,049 million of gross credit sales, which increased the total trade receivables as shown by a); gross credit sales is calculated by adding the estimate of sales returns (£425 million) to the Sales amount (£5,624 million) reported in the income statement.
As represented in the t-account by c) and the journal entries in question F., Pearson wrote-off £20 million of trade receivables, which decreased the total trade receivables.

In question g., it was illustrated that Pearson reported actual sales returns of £443 million; this also decreased the trade receivables amount as depicted by d) in the t-account. Given these pieces of information and the ending balance of total trade receivables (£1,419 million), the cash Pearson collected was £5,641 million, which is shown by b) in the t-account.

Sales on Account (in £ millions)

Accounts Receivable 6,049

Sales Revenue 6,049

Accounts Receivable Collection (in £ millions)

Cash 5,641

Accounts Receivable 5,641

Case Four: Intermediate Problem How-To

Introduction

The following problem is from Chapter Four (Income Statement and Related Information) of my Intermediate textbook. The content in this problem will be on my upcoming test, and it deals with adjusting income from continuing operations and discontinued operations. I am going to provide a how-to for completing this problem. I will go step by step based on the numbered information in the problem. Then, I will show how to present the actual answer in Figure 4 and Table 7.

P4-3: Maher Inc. reported income from continuing operations before taxes during 2017 of $790,000. Additional transactions occurring in 2017 but not considered in the $790,000 are as follows:

1. The corporation experienced an uninsured flood loss in the amount of $90,000 during the year.

2. At the beginning of 2015, the corporation purchased a machine for $54,000 (salvage value of $9,000) that had a useful life of 6 years. The bookkeeper used straight-line depreciation for 2015, 2016, and 2017, but failed to deduct the salvage value in computing the depreciation base.

3. Sale of securities held as a part of its portfolio resulted in a loss of $57,000 (pretax).

4. When its president died, the corporation realized $150,000 from an insurance policy. The cash surrender value of this policy had been carried on the books as an investment in the amount of $46,000 (the gain is nontaxable).

5. The corporation disposed of its recreational division at a loss of $115,000 before taxes. Assume this transaction meets the criteria for discontinued operations.

6. The corporation decided to change its method of inventory pricing from average-cost to the FIFO method. The effect of this change on prior years is to increase 2015 income by $60,000 and decrease 2016 income by $20,000 before taxes. The FIFO method has been used for 2017. The tax rate on these items is 40%.

Instructions

Prepare an income statement for the year 2017 starting with income from continuing operations before taxes. Compute earnings per share as it should be shown on the face of the income statement. Common shares outstanding for the year are 120,000 shares. (Assume a tax rate of 30% on all items, unless indicated otherwise.)

A. The corporation experienced an uninsured flood loss in the amount of $90,000 during the year.

This $90,000 loss was not considered in the calculation of income from continuing operations before tax. Since the loss should be in the nonoperating section (other revenues/gains and other expenses/losses), the $90,000 needs to be subtracted from the $790,000 income from continuing operations.

B. At the beginning of 2015, the corporation purchased a machine for $54,000 (salvage value of $9,000) that had a useful life of 6 years. The bookkeeper used straight-line depreciation for 2015, 2016, and 2017, but failed to deduct the salvage value in computing the depreciation base.

The bookkeeper made an error and overstated depreciation expense by $1,500 in 2017. The calculation for this is: [$54,000/6 (incorrect depreciation expense)] – [$54,000-$9,000/6 (correct depreciation expense)]. This $1,500 overstatement means that income from continuing operations was understated, so the $1,500 needs to be added to the $790,000 income from continuing operations.

C. Sale of securities held as a part of its portfolio resulted in a loss of $57,000 (pretax).

This $57,000 loss should have been reported in the nonoperating section of the income statement, but it was not. Therefore, the $57,000 needs to be subtracted from the $790,000 income from continuing operations before tax.

D. When its president died, the corporation realized $150,000 from an insurance policy. The cash surrender value of this policy had been carried on the books as an investment in the amount of $46,000 (the gain is nontaxable).

This $104,000 gain ($150,000 realized - $46,000 cash surrender value of the policy) was also not reported in the nonoperating section of the income statement like it should have been. Therefore, the $104,000 needs to be added to the $790,000 income from continuing operations before tax. However, the gain is nontaxable, so when calculating

the income tax expense, do not include the $104,000 in the income from continuing operations base.

E. The corporation disposed of its recreational division at a loss of $115,000 before taxes. Assume this transaction meets the criteria for discontinued operations.

Since the $115,000 loss meets the criteria for discontinued operations, it will need to be reported in the discontinued operations section of the income statement on a net of tax (after tax) basis.

F. The corporation decided to change its method of inventory pricing from average-cost to the FIFO method. The effect of this change on prior years is to increase 2015 income by $60,000 and decrease 2016 income by $20,000 before taxes. The FIFO method has been used for 2017. The tax rate on these items is 40%.

The new FIFO method has already been used in 2017; therefore, its effects are already represented by the $790,000 income from continued operations before tax.

Adjusted income from continuing operations before tax: $790,000

1. <90,000>
2. 1,500
3. <57,000>
4. 104,000

$748,500

Income tax for continuing operations: $748,500

4. <104,000>

644,500

X 30% (tax rate)

$193,350

Applicable tax on discontinued operations loss: $115,000

X 30%

$34,500

Figure 4. Intermediate Problem How-To Calculations

Table 7. Intermediate Problem How-To Income Statement

Income From Continued Operations Before Tax		$ 748,500
Income Tax		<193,200>
Income from Continuing Operations		555,300
Discontinued Operations		
Loss on Disposal of Recreational Division	115,000	
Less Applicable Income Tax of $34,500	<34,500>	80,500
Net Income		$ 474,800
Earnings Per Share		$ 3.96

Case Five: Palfinger AG

Introduction

This case focused on the property, plant, and equipment (PPE) of Palfinger AG – an Austrian manufacturing company that produces solutions for the construction, hauling, agriculture/forestry, transportation, and recycling industries. This case asked several questions about Palfinger's PPE and the depreciation method it uses. The case also asked general questions about the different types of depreciation methods and their income statement impacts.

The first five questions (questions a. – f.) were all conceptual, and I looked at the notes to Palfinger's financial statements and my intermediate textbook to answer these questions. Questions g. – j. were more procedure-based; these questions involved actual calculations of purchases, depreciation expense, net book value, and the gain or loss from sale of equipment under the straight-line method and the double-declining-balance method. I utilized Deloitte's IASPlus website in addition to Palfinger's notes to figure out the accounting for government grants.

I believe that I learned quite a bit of useful information from this case. For instance, I knew very little about governmental grants before I completed this case; now, I have a foundation for learning about these items in the future. Also, I possessed a basic comprehension of depreciation methods before completing this case, but now I more thoroughly understand the positives and negatives of using various methods. My newfound knowledge will help me properly record the acquisition and sales of PPE in future classroom settings and the professional accounting world.

A. Based on the description of Palfinger above, what sort of property and equipment do you think the company has?

Palfinger manufactures machinery like cranes, hydraulic lifts, work platforms, etc. for the construction, agriculture, transportation, recycling, forestry, and hauling industries. Based on this information, I think that Palfinger has several large factories/plants to manufacture its different products. Within each factory, Palfinger likely has large, high-tech manufacturing machinery and equipment that is used to create the products. Also, I think that Palfinger has various storage areas/warehouses to store the products it is manufacturing. To transfer products from the factories to the warehouses to the customers, Palfinger probably owns several large trucks/semis.

B. The 2007 balance sheet shows property, plant, and equipment of €149,990. What does this number represent?

The €149,990 represents the carrying amount of Palfinger's plant, property, and equipment at December 31, 2007. The carrying amount is the total acquisition cost minus the total accumulated depreciation/impairment amounts. The total acquisition cost at December 31, 2007 is comprised of the 2006 acquisition costs (for additions, disposals, reclassifications, and foreign currency translations) and the 2007 acquisition costs (for change in scope of consolidation, additions, additional capitalizations, government grants, disposals, reclassifications, reclassifications to held for sale, and foreign currency translations). The total 2006 and 2007 acquisition cost is €229,259.

The total accumulated depreciation/impairment amount at December 31, 2007 is comprised of the 2006 accumulated depreciation/impairment amounts (for PPE in use, impairments, disposals, reclassifications, and foreign currency translations) and the 2007 accumulated depreciation/impairment amounts (for change in scope of consolidation, PPE in use, write-ups, additional capitalization, disposals, reclassifications, reclassifications to held for sale, and foreign currency translations). This 2006 and 2007 accumulated depreciation/impairment total is €76,269. The carrying amount of €149,990 shown on Palfinger's balance sheet is equal to the total acquisition cost at December 31, 2007 (€229,259) less the total accumulated depreciation/impairment amount at December 31, 2007 (€76,269).

C. What types of equipment does Palfinger report in notes to the financial statements?

In the notes to the financial statements, Palfinger reports the following PPE classifications: own buildings and investments in third-party buildings, plant/machinery, and fixtures/fittings/equipment. In particular, Palfinger shows changes in the following PPE: land/buildings, undeveloped assets, plant/machinery, other plant/fixtures/fittings/equipment, and prepayments/assets under construction. Prepayments/assets under construction are known under U.S. GAAP as "self-constructed assets," which are PPE that a company is self-constructing.

D. In the notes, Palfinger reports "Prepayments and assets under construction." What does this sub- account represent? Why does this account have no accumulated depreciation? Explain the reclassification of €14,958 in this account during 2007.

The subaccount titled "prepayments and assets under construction" represents PPE that Palfinger was self-constructing (rather than purchasing) at the time. The PPE in the prepayments and assets under construction account were not depreciated because assets can only be depreciated if they are available for use. Since the assets in this account were still under construction (i.e. not available for use), they were not depreciated. €14,958 of this amount was reclassified in 2007 because some of the PPE in the account were completed. Those assets accordingly would have been reclassified as PPE available for use.

E. How does Palfinger depreciate its property and equipment? Does this policy seem reasonable? Explain the trade-offs management makes in choosing a depreciation policy.

According to the notes to the financial statements, Palfinger depreciates its property and equipment using the straight-line depreciation method as soon as an asset is put into operation. Depreciation is spread out over the prospective useful life of the asset. This expected useful life is determined by the economic/technical useful life. Palfinger's own buildings and investments in third-party buildings have useful lives of 8 – 50 years, its plant and machinery have useful lives of 3-15 years, and its fixtures/fittings/equipment have useful lives of 3-10 years.

This straight-line policy seems reasonable because it is simple; however, it may not be appropriate in this instance because it considers depreciation as a function of time rather than a function of usage. For Palfinger's PPE, it would seem more appropriate to use a depreciation method that considers depreciation as a function of usage since most of Palfinger's PPE are likely factory machines and transportation vehicles. The amount of usage of these items (not how long they have been owned) determines how long they will last. Also, the straight-line method assumes that assets have the same economic usefulness each year, but new machinery/buildings may be more useful than older ones. When management, chooses a depreciation policy, it faces several trade-offs because each method has pros and cons. The trade-off with the straight-line method is that while it is simple and usually conceptually appropriate, it assumes that the economic usefulness and maintenance/repair expense is the same each year.

The other major methods are the decreasing-charge methods. These have pros and cons as well. These methods provide a constant cost since the depreciation charge is lower in later periods when the maintenance/repair costs are higher. However, these methods are not as simple as the straight-line method and likely cost more money and time. Managers have to think about all the pros and cons of each method before choosing one to implement.

F. Palfinger routinely opts to perform major renovations and value-enhancing modifications to equipment and buildings rather than buy new assets. How does Palfinger treat these expenditures? What is the alternative accounting treatment?

For expenditures for major renovations and value-enhancing modifications to equipment/buildings, Palfinger classifies them as investments, capitalizes them, and depreciates them over the assets' useful lives. Using this method means that Palfinger keeps the carrying amount of the old assets on the books while capitalizing the improvements. The alternative accounting treatment is to reduce accumulated depreciation by the expenditure amount. This is primarily used when an asset's useful life is extended rather than when an asset is improved. On the other hand, there is another alternative to these two approaches. This is the substitution approach. Under this approach, the cost of the old asset is removed and replaced with the cost of the new asset. This approach only works if the value of the old asset is available.

G. Use the information in the financial statement notes to analyze the activity in the "Property, plant and equipment" and "Accumulated depreciation and impairment" accounts for 2007. Determine the following amounts:

i. The purchase of new property, plant and equipment in fiscal 2007.

€61,444 is the amount of the purchase of new property, plant and equipment in fiscal 2007. This amount appears in the second page of the notes to the financial statements within the acquisition costs section. The €61,444 is the total of all the purchases (additions) of all PPE.

ii. Government grants for purchases of new property, plant and equipment in 2007. Explain what these grants are and why they are deducted from the property, plant, and equipment account.

€733 is the amount of government grants for purchases of new property, plant, and equipment in 2007. These grants are non-repayable financial awards given to Palfinger by the government. These grants are presented as reductions of the acquisition and/or manufacturing cost of PPE. Since these grants are related to assets, they have to either be presented as deferred income or deducted from the carrying amount of the assets acquired. Palfinger, therefore, used one of these allowable methods because it chose to deduct the grants from the acquisition costs of its property, plant, and equipment.

iii. Depreciation expense for fiscal 2007.

€12,557 is the depreciation expense for fiscal 2007. This is shown in the second page of the notes within the accumulated depreciation and impairment section. It represents the total depreciation for all of Palfinger's PPE in 2007.

iv. The net book value of property, plant, and equipment that Palfinger disposed of in fiscal 2007.

€1,501 is the net book value of disposed PPE in fiscal 2007. The numbers used to calculate this number are in the second page of the notes to the financial statements. The net book value is calculated by subtracting the total depreciation of the disposals (€12,298 as shown within the accumulated depreciation and impairment section) from

the cost of the disposed PPE (€13,799 as shown within the acquisition cost section).

H. The statement of cash flows (not presented) reports that Palfinger received proceeds on the sale of property, plant, and equipment amounting to €1,655 in fiscal 2007. Calculate the gain or loss that Palfinger incurred on this transaction. Hint: use the net book value you calculated in part g iv, above. Explain what this gain or loss represents in economic terms.

The gain from the sale of Palfinger's PPE in 2007 is €154. This is illustrated by the following journal entry:

Cash	1,655	
Accumulated Depreciation	12,298	
	Gain on Disposal of PPE	154
	PPE	13,799

This gain represents the difference between the net book value of the disposed PPE assets (€1,501) and the cash (disposal value) that was received when the assets were sold (€1,655). This gain increases net income.

I. Consider the €10,673 added to "Other plant, fixtures, fittings, and equipment" during fiscal 2007. Assume that these net assets have an expected useful life of five years and a salvage value of €1,273. Prepare a table showing the depreciation expense and net book value of this equipment over its expected life assuming that Palfinger recorded a full year of depreciation in 2007 and the company uses:

i. Straight-line depreciation.

Table 8. Palfinger AG Straight-Line Depreciation Schedule

Straight-Line Depreciation		
Year	Depreciation Expense	End of Year Book Value
(1) 2007	€ 1,880	€ 8,793
(2) 2008	1,880	6,913
(3) 2009	1,880	5,033
(4) 2010	1,880	3,153
(5) 2011	1,880	1,273

The depreciation expense is calculated by 1) subtracting the €1,273 from the €10,673 cost of the additional other plant, fixtures, fittings, and equipment and 2) dividing this total by the useful life of five years. The end-of-year book value for 2007 (€8,793) is

calculated by subtracting the €1,880 depreciation expense from the €10,673 cost/carrying value when the assets were first added.

ii. Double-declining-balance depreciation.

Table 9. Palfinger AG Double-Declining Balance Depreciation Schedule

Double-Declining-Balance Depreciation					
Year	Book Value, Beginning of Year	Rate on Declining Balance	Depreciation Expense	Accumulated Depreciation	Book Value, End of Year
(1) 2007	€ 10,673.00	40%	€ 4,269.20	*€ 4,269.20*	€ 6,403.80
(2) 2008	6,403.80	40%	2,561.52	6,830.72	3,842.28
(3) 2009	3,842.28	40%	1,536.91	8,367.63	2,305.37
(4) 2010	2,305.37	40%	922.15	9,289.78	1,383.22
(5) 2011	1,383.22	40%	110.22	9,400.00	1,273.00

The rate is calculated by doubling the straight-line rate. The straight-line rate is calculated by dividing the €1,880 yearly depreciation expense by the difference between the cost of the disposed assets (€10,673) and the salvage value (€1,273). The straight-line rate is twenty percent; therefore, the double-declining rate is forty percent.

J. Assume that the equipment from part i. was sold on the first day of fiscal 2008 for proceeds of €7,500. Assume that Palfinger's accounting policy is to take no depreciation in the year of sale.

i. Calculate any gain or loss on this transaction assuming that the company used straight-line depreciation. What is the total income statement impact of the equipment for the two years that Palfinger owned it? Consider the gain or loss on disposal as well as the total depreciation recorded on the equipment (i.e. the amount from part i. i.).

The loss on this transaction assuming Palfinger used straight-line depreciation is €1,293. This represents the difference between the 2007 book value of €8,793 and the €7,500 cash amount received when sold. The following journal entry represents this transaction:

Cash	7,500	
Accumulated Depreciation	1,880	
Loss on Sale	1,293	
Other plant, fixtures, fittings, and equipment		10,673

The total income statement impact of the equipment for the two years that Palfinger owned it is that it decreased net income by €3,173. This is calculated by totaling the 2007 depreciation expense of €1,880 and the 2008 loss on sale of €1,293. The depreciation expense (€1,880) would appear in the operating expenses section of the income statement, and the loss on sale of equipment (€1,293) would appear in the

other losses and expenses section of the income statement. Both amounts decrease net income for a total decrease of €3,173.

ii. Calculate any gain or loss on this transaction assuming the company used double-declining- balance depreciation. What is the total income statement impact of this equipment for the two years that Palfinger owned them? Consider the gain or loss on disposal as well as the total depreciation recorded on the equipment (i.e. the amount from part i. ii.).

The gain on this transaction assuming Palfinger used double-declining-balance depreciation is €1,096.20. This represents the difference between the 2007 end-of-year book value of 6€,403.80 and the €7,500 cash received from the sale. The following journal entry represents this transaction:

Cash	7,500		
Accumulated Depreciation	4,269.20		
	Gain on Sale		1,096.20
	Other plant, fixtures, fittings, and equipment		10,673

The total income statement impact of the equipment for the two years that Palfinger owned it is that it decreased net income by €3,173. This is calculated by totaling the 2007 depreciation expense of €4,269.20 and the 2008 gain on sale of €1,096.20. The depreciation expense (€4,269.20) would appear in the operating expenses section of the income statement, and the gain on sale of equipment (€1,096.20) would appear in the other revenues and gains section of the income statement. The depreciation expense

decreases net income while the gain on sale increase net income; therefore, net income would decrease by the difference between the two (€3,173).

iii. Compare the total two-year income statement impact of the equipment under the two depreciation policies. Comment on the difference.

The total income statement impact under the two depreciation methods is the same. Both decrease net income by €3,173. However, these two methods do affect operating expenses and non-operating expenses differently. The straight-line method only increases operating expenses by €1,880, while the double-declining-balance method increases operating expenses by €4,269.20. This difference occurs because the double-declining-balance method recognizes higher depreciation amounts in the early years of an asset's life.

There is also a difference in the non-operating section. The straight-line method results in a non-operating loss on sale of €1,293, while the double-declining-balance method results in a non-operating gain on sale of €1,096.20. This difference arises because the book value under the straight-line method is higher than the cash received for the assets (due to a lower depreciation expense), and the book value under the double-declining-balance method is lower than the cash received (due to a higher depreciation expense).

Case Six: Volvo Group

Introduction

This case was centered around Volvo Group—a Sweden-based company that manufactures and supplies various types of commercial vehicles to customers around the world. In particular, this case focused on Volvo's research and development (R&D) costs and how they are accounted for. There were three types of questions within this case: conceptual questions, procedural questions, and analytical questions.

Questions a. – d. were conceptual; they asked about typical R&D costs, Volvo's R&D capitalization approach, factors that are considered in determining amortization periods, and U.S. GAAP versus IFRS in regards to accounting for R&D costs. The procedural questions, e. – f., required us to perform calculations and fill in tables for amounts of product and software development costs capitalized, total R&D expenses, amortization amounts, etc. Question g. was analytical, and it asked us to find Volvo's net sales and total assets and compare the proportion of total R&D costs incurred to net sales for Volvo and Navistar, a U.S. competitor. To answer all of these questions, I examined Volvo's consolidated financial statements, notes to the statements, and eleven-year summary.

I believe that I learned quite a bit of useful information from this case. I did not know what types of costs were considered R&D, so analyzing Volvo's R&D costs helped me understand what R&D truly represents. Also, by learning about the differences between IFRS and U.S. GAAP in accounting for R&D costs, I now have a better idea of how national and international companies report their R&D costs. I believe that my

general awareness of R&D costs will come in handy in many of my future accounting courses and my professional accounting career.

A. <u>The 2009 income statement shows research and development expenses of SEK 13,193 (millions of Swedish Krona). What types of costs are likely included in these amounts?</u>

The SEK 13, 193 million of research and development expenses includes costs of research and costs of development. Based on the excerpt from IAS 38, the research costs likely include costs to obtain new knowledge, costs to apply research findings, costs to search for alternative products/services, and costs to evaluate and select alternatives for new products/services. The development costs likely include costs for the designing/testing of pre-production prototypes, the designing of tools of new technology, and the testing of a chosen alternative for new products/services.

B. <u>Volvo Group follows IAS 38—Intangible Assets, to account for its research and development expenditures (see IAS 38 excerpts at the end of this case). As such, the company capitalizes certain R&D costs and expenses others. What factors does Volvo Group consider as it decides which R&D costs to capitalize and which to expense?</u>

When Volvo Group considers which R&D costs to capitalize and which to expense, it first determines if the item is in the research phase or the developmental phase. If the item is considered a research item, it is always expensed as incurred. Research costs are

never capitalized. If the item is a developmental item, Volvo must demonstrate these things for the item to be capitalized:

1. the item will be available to use or sell, and Volvo has the ability to use or sell it,

2. the item is technically feasible,

3. the item is able to generate future economic benefits,

4. there are available resources to complete the item, and

5. there is an ability to measure the costs of completing the item.

If any of these cannot be demonstrated, Volvo has to expense the item.

C. The R&D costs that Volvo Group capitalizes each period (labeled Product and software development costs) are amortized in subsequent periods, similar to other capital assets such as property and equipment. Notes to Volvo's financial statements disclose that capitalized product and software development costs are amortized over three to eight years. What factors would the company consider in determining the amortization period for particular costs?

The amortization period for particular costs is based on the useful life of the asset. Therefore, the first factor that Volvo would look at is the useful life of the asset. If the asset is an indefinite-life intangible asset, its useful life is considered indefinite, and it is not amortized. If the asset is a limited-life intangible asset, it will be amortized, and expenses will be charged over the asset's useful life. These factors are considered when determining useful life and therefore amortization period:

1. the expected use of the asset,

2. the expected useful life of another asset to which the useful life of the asset being amortized can be compared,

3. any legal/contractual provisions that may limit the asset's useful life,

4. any provisions that enable a renewal/extension of the asset's life without substantial cost,

5. the effects of economic factors, like obsolescence, demand, competition, etc., and

6. the level of maintenance costs required to obtain the expected future cash flows from the asset.

D. Under U.S. GAAP, companies must expense all R&D costs. In your opinion, which accounting principle (IFRS or U.S. GAAP) provides financial statements that better reflect costs and benefits of periodic R&D spending?

In my opinion, I think that the IFRS principle for accounting for R&D costs provides a better reflection of costs and benefits of periodic R&D spending. Under U.S. GAAP, all R&D costs have to be expensed. This approach does not allow the benefits of R&D to be capitalized and reflected in asset amounts. Under IFRS, research costs have to be expensed, but certain developmental costs can be capitalized. This approach allows the developmental activities that provide future benefits to the asset to be capitalized while those representing expenditures (not future benefits) are expensed. Thus, costs and benefits are better reflected under the IFRS approach.

E. Refer to footnote 14 where Volvo reports an intangible asset for "Product and software development." Assume that the product and software development costs reported in footnote 14 are the only R&D costs that Volvo capitalizes.

i. What is the amount of the capitalized product and software development costs, net of accumulated amortization at the end of fiscal 2009? Which line item on Volvo Group's balance sheet reports this intangible asset?

The amount of the capitalized product and software development costs, net of accumulated amortization at the end of fiscal 2009 is SEK 11,409 million. This is calculated by taking the SEK 25,148 million (acquisition cost for product and software development in the balance sheet 2009) and subtracting the SEK 13,739 million (accumulated amortization for product and software development in the balance sheet 2009). This information is found in note 14. The line item on Volvo Group's balance sheet that reports this intangible asset is the intangible assets item of SEK 41,628 million.

ii. Create a T-account for the intangible asset "Product and software development," net of accumulated amortization. Enter the opening and ending balances for fiscal 2009. Show entries in the T-account that record the 2009 capitalization (capital expenditures) and amortization. To simplify the analysis, group all other account activity during the year and report the net impact as one entry in the T-account.

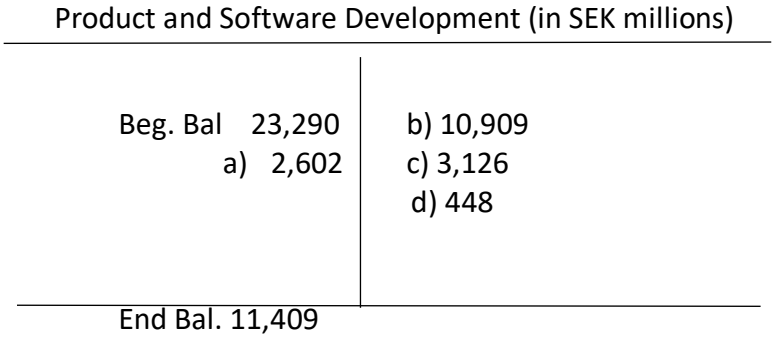

Figure 5. Volvo Group Product and Software Development T-Account

These amounts are found in note 14. The SEK 23,290 million is reported in the note as the value in the 2008 balance sheet for acquisition costs for product and software development. The SEK 2,602 million appears as the capital expenditure amount for 2009. These amounts increase the product and software development account, which is why they are debited in the t-account. On the credit (decreasing) side, the SEK 10,909 million is reported in note 14 as the value in the 2008 balance sheet for the accumulated amortization amount. The SEK 3,126 million appears as the 2009 capital expenditures amortization amount. It is reported in the note that the net carrying value

in the balance sheet at 2009 is SEK 11,409 million; based on the amounts represented in a) – c) and the given ending balance, the plug for the t-account is the credit of SEK 448 million.

F. Refer to Volvo's balance sheet, footnotes, and the eleven-year summary. Assume that the product and software development costs reported in footnote 14 are the only R&D costs that Volvo capitalizes.

i. Complete the table below for Volvo's Product and software development intangible asset.

Table 10. Volvo Group R&D Cost Calculation

(in SEK millions)	**2007**	**2008**	**2009**
1) Product and software development costs capitalized during the year	2,057	2,150	2,602
2) Total R&D expense on the income statement	11,059	14,348	13,193
3) Amortization of previously capitalized costs (included in R&D expense)	-2,357	-2,864	-3,126
4) Total R&D costs incurred during the year = 1 + 2 - 3	10,759	13,634	12,669

iii. What proportion of Total R&D costs incurred did Volvo Group capitalize (as product and software development intangible asset) in each of the three years?

In 2007, the proportion of total R&D costs incurred that Volvo capitalized as product and software development intangible asset is 0.191. For 2008, the proportion is 0.157, and for 2009, the proportion is 0.205. These proportions show that Volvo expensed most of its R&D costs in each year. The calculations for each proportion are shown in Table 11 below.

Table 11. Volvo Group R&D Capitalization Proportion

(in SEK millions)	**2007**	**2008**	**2009**
Product and software development costs capitalized during the year	2,057	2,150	2,602
	÷	÷	÷
Total R&D costs incurred during the year	10,759	13,634	12,669
Proportion total R&D costs incurred that Volvo capitalized	19%	16%	21%

G. Assume that you work as a financial analyst for Volvo Group and would like to compare Volvo's research and development expenditures to a U.S. competitor, Navistar International Corporation. Navistar follows U.S. GAAP that requires that all research and development costs be expensed in the year they are incurred. You gather the following information for Navistar for fiscal year end October 31, 2007 through 2009.

i. Use the information from Volvo's eleven-year summary to complete the following table:

Table 12. Volvo Group Net Sales and Total Assets Summary

(in SEK millions)	**2007**	**2008**	**2009**
Net sales, industrial operations	276,795	294,932	208,487
Total assets, from balance sheet	321,647	372,419	332,265

ii. Calculate the proportion of total research and development costs incurred to net sales from operations (called, net sales from manufactured products, for Navistar) for both firms. How does the proportion compare between the two companies?

Table 13. Navistar and Volvo Comparison

Navistar (in SEK millions)	**2007**	**2008**	**2009**
Total R&D costs incurred during the year	375	384	433
	÷	÷	÷
Net sales from operations	11,910	14,399	11,300
Proportion of total R&D costs incurred to net sales from operations	3%	3%	4%
Volvo (in SEK millions)			
Total R&D costs incurred during the year	10,759	13,634	12,669
	÷	÷	÷
Net sales from operations	276,795	294,932	208,487
Proportion of total R&D costs incurred to net sales from operations	4%	5%	6%

In each year, the proportion of total R&D costs incurred to net sales from operations is higher for Volvo than for Navistar. This means that a larger proportion of Volvo's net sales is used to cover its total R&D costs.

Case Seven: Data Analytics (SAS)

Introduction

This case focused on data analytics tools and their history, purpose, potential usefulness, etc. I was asked to perform research on SAS (Statistical Analysis System), a data analytics tool that was originally intended for agricultural use but is now used by more than twenty industries across the globe. This case required general research about SAS and speculation as to how SAS could be used by public accounting firms.

The first question of the case asked about the history/purpose of SAS, its usefulness in making business decisions, and the resources needed to fully utilize it. To answer this question, I accessed various pages on the SAS website. The second question asked about the ways in which students can acquire the special skills needed to use SAS. To answer this question, I used the Learn tab on the SAS website. The Learn tab provided a list of numerous training resources, which helped me understand how students can acquire the skills needed to use SAS. For the third question, I had to brainstorm three scenarios in which SAS would lead to better efficiency/effectiveness for auditing, tax, and advisory situations. To answer this question, I accessed KPMG's advisory page and various websites about certain industries to come up with logical scenarios. The fourth question asked me to explain to a future public accounting partner why our team should invest in SAS. I used the knowledge I acquired from answering the other questions and some general information from the SAS website to complete this question.

Before working on this case, I had never heard of SAS. I also knew very little about data analytics tools in general. Now, I believe that I have a foundational

understanding of the capabilities of data analytics tools. I will be able to use this knowledge going forward as I continue to learn about the ways in which data analytics and public accounting coincide.

A. Identify the history and purpose of this tool and describe, in general, how it is used to make business decisions. Be specific about what kind of technology platform it uses, etc. and other resources that need to be in place to fully utilize the functionality of the tool.

i. History of SAS[1]

The development of SAS began at North Carolina State University in the late 1960s in an attempt to analyze agricultural data. In 1976, other industries began using SAS, and SAS Institute Inc. was formed. Over the next three years, SAS was placed on the DataPro Software Honor Roll by Datamation magazine, and by 1978, SAS Institute Inc. had grown to twenty-one employees and six-hundred sites.

In 1980, SAS Institute Inc. released SAS/GRAPH for graphics and SAS/ETS for economic/time series analysis. During the 1980s, the company re-wrote the SAS software in C language so that SAS could run on PCs since PCs were becoming popular during this time. The SAS graphic and data-modeling capabilities were also enhanced during the 1980s. By the 1990s, the company had seven-thousand employees in all

[1] "About SAS." *SAS*, SAS Institute Inc., www.sas.com/en_us/company-information.html#history

continents. New platforms were created during this time, such as SAS/PH-Clinical software for pharmaceutical companies, SAS Financial Management and SAS Human Capital Management for business purposes, and SAS Curriculum Pathways for online curriculum about SAS technology.

In the 2000s, SAS Institute Inc. created a YouTube channel, podcasts, and webcasts for users to learn more about its products. SAS has been installed in at least eighty-thousand businesses since it was first created. Some new products that have been developed since 2010 are SAS Visual Analytics, SAS Visual Statistics/SAS In-Memory Statistics, and SAS Analytics U, which includes free software for universities and educational institutions.

ii. SAS Purpose: Decision Making [2]

SAS allows individuals to access data in tables or visuals and manipulate that data by combining it with other data, organizing it, etc. SAS also provides statistical applications for analyzing data and allows individuals to format data and accompanying analyses in HTML, PDF, or RTF reports for colleagues, clients, bosses, etc. to view. In overview, SAS gives users easy ways to manage, analyze, and format data into meaningful reports. These capabilities make decision-making easier because relevant information can be shared quickly between all parties involved in any decision-making process.

[2] "SAS University Edition: Help Center." *SAS*, SAS Institute Inc., support.sas.com/software/products/university-edition/faq/SAS_whatis.htm

iii. Resources Needed to Utilize SAS Functionality

SAS can run on the operating systems of PCs and Macintoshes[3]. Users should have access to the internet to purchase and download SAS, watch tutorials, take live online classes, talk to customer service representatives, etc. All the programming, graphic-creating, and report-formatting tools will be included with the SAS software packages.

B. What special skills are needed to use this tool to aid in business decision making. How might a student like yourself gain those skills?

Based on various tutorials on the SAS website, these are some of the special skills needed to use SAS[4]:

- Ability to program software to adapt/ change it;
- Knowledge of how to access data through SAS;
- Ability to create new columns for data;
- Capability of editing reports; and
- Ability to create visuals.

There are several ways that students can gain the skills mentioned above[5]:

- Watch the tutorials on the SAS website. These give users step by step instructions for performing a variety of tasks;

[3] "About SAS." *SAS*, SAS Institute Inc., www.sas.com/en_us/company-information.html#history

[4] "Overview of SAS Visual Analytics." *SAS*, SAS Institute Inc., video.sas.com/#category/videos/how-to-tutorials/1

[5] "Analytics, Business Intelligence and Data Management." *SAS*, SAS Institute Inc., www.sas.com/en_us/home.html

- Participate in live web classes and/or purchase an e-learning package through the SAS website;
- Download SAS during college to learn how to use it before getting a job in the real world; and
- Take data analytics courses during college to help set a foundation for using various data analytics tools.

C. How, specifically, would you use the tool in the following business settings? Create at least three specific scenarios for each category in which the tool would lead to more efficiency and/or better effectiveness. Be sure to describe what kinds of data your tool would use for each scenario.

i. Auditing

1) The airline industry typically has the highest debt to equity ratio out of any industry, so airlines often have large amounts of debt[6]. If a public accounting firm is performing an audit on an airline company, like Delta, the auditors could use SAS to sift through loan information about bonds, notes payable, etc. to collect data about the company's debt. This data could then be compared to the amount of debt shown on the balance sheet to see if the company is hiding any debt accidentally or intentionally. Since airlines are huge companies, they likely have quite a bit of outstanding debt information that

[6] "What Industry Typically Has the Highest Debt Equity Ratios?" *Sapling*, Leaf Group Ltd., www.sapling.com/8274597/industry-highest-debt-equity-ratios

would take auditors a great deal of time to go through. Therefore, SAS would make the auditing process shorter and more simplified.

2) SAS can be used to process receipt, journal entry, and general ledger information to check inventory amounts of companies like Walmart that has millions of customers and thousands of products. Then, this amount could be compared to the balance sheet to see if the reported number of inventory units is actually accurate and not overstated. Walmart has so much inventory that hand counting each item would take a great deal of time, so using SAS would be extremely time efficient.

3) Tech companies, like Apple, Google, and Microsoft, often report high values of cash on their balance sheets and statements of cash flows[7]. Using SAS, accountants auditing one of these tech companies could collect data from bank statements, journal entries, general ledgers, etc. to see how much cash the company actually has. This amount could then be compared to the value of cash in the company's balance sheet and statement of cash flows. There could potentially be millions of transactions and events involving cash, and actually checking/finding each one without SAS would take quite some time.

[7] "Cash Rich: 10 Companies with the Largest Cash Piles." *Forbes*, Forbes Media LLC., www.forbes.com/pictures/fi45edieig/apple-7/#72960bd7682a

ii. Tax Planning

1) Certain oil and gas companies have large profits, like Exxon Mobil and Chevron, and these companies pay some of the highest income taxes in the country[8]. Tax accountants working with one of these companies could use SAS to collect data on the corporate tax rates of every country in the world to see which country has the lowest. Then, the data could be analyzed to see if the company should consider moving more gas stations and oil rigs overseas and having less in the U.S. The corporate tax rate data could be organized into a bar chart for easy analyzation. Then, the findings could be put into a report to share with the client and colleagues. It would take a very long time to record every country's corporate tax rate and efficiently compare the different rates if the accountants did not use SAS.

2) If a smaller company is struggling to pay income taxes, tax accountants could look at the state income tax rate of the state the company is located in. The accountants could use SAS to collect data on 1) nearby states with lower tax rates and 2) states where similar companies make a similar net income. The accountants could then consider eliminating data pertaining to states that have significantly lower net incomes for similar companies. The tax accountants and company would have to look at other factors, too, such as the cost of moving, the effects of getting a new customer base, etc. The

[8] "Companies Paying the Most in Income Taxes." *USA Today*, Gannett Satellite Information Network, LLC., www.usatoday.com/story/money/personalfinance/2013/03/17/companies-paying-highest-income-taxes/1991313

accountants could use both data sets mentioned above to see if the company should consider moving its store/stores to a different state to minimize net income and not waste it on unnecessary taxes. It would take a very long time to collect, organize, and analyze both sets of data without using a tool like SAS.

3) If a public accounting firm is working with a medium sized company, like Trip Advisor, and the company is trying to figure out where to place another set of offices, the tax accountants could use SAS to help. They could use SAS to collect data about each state's income tax rate to see which ones have the lowest rates. This data could be put in a bar graph to be analyzed. The company could then use the data to help decide which state/states it should build new offices in. This would be easier and faster than collecting and formatting data by hand.

iii. Financial Statement Analysis/Valuation/Advisory

1) One of the branches of advisory accounting is forensics, which is classified under risk consulting[9]. If a group of advisory accountants is working with a smaller company, like a local factory, and the factory's management team has been hearing rumors that one of the factory's accountants has been transferring company cash to himself, SAS could be used to collect data about the potential fraud. The accountants could use SAS to collect data on all the accountant's activities, such as journal entries, t-accounts, financial statements he/she worked on, etc. to look for irregularities. Also, SAS could be used to

[9] "Forensic." *KPMG*, KPMG International, home.kpmg.com/xx/en/home/services/advisory/risk-consulting/forensic.html

collect and organize data on actual cash amounts, and that data could be compared to the amount that the company is actually reporting. Using SAS for this tedious process would be much faster than hand-checking all the items mentioned above.

2) Advisory accountants also might work with a company that is trying to buy another business[10]. If working with a bigger company, like Macy's, and Macy's is considering buying JC Penny, Macy's needs to know if it has enough funds to actually purchase JC Penny. Macy's also needs to know how much JC Penny is truly worth. The accountants could use SAS to collect data from both companies' financial statements to compare the two and see if Macy's can and should (based on JC Penny's information) buy the company. If analysis of the data shows that Macy's should not purchase JC Penny, the accountants could collect data on other potential retailers and compare that data using SAS graphs. This would allow Macy's to see if they should consider purchasing another company. If SAS is used, it would make this type of decision much easier to make.

3) Advisory accountants might even help perform crisis management[11] for a client whose stores are damaged by a natural occurrence. For example, if a hurricane hits Florida and damages many Publix stores, the company needs to know what the damage is. Each store's management team could use SAS to easily input the amounts of inventory, people, equipment, etc. that were lost or damaged. SAS could then be used

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[10] "Buying a Business." *KPMG*, KPMG International, home.kpmg.com/xx/en/home/services/advisory/deal-advisory/buying-a-business-the-acquisition-lifecycle.html

[11] "Crisis Management." KPMG, KPMG International, home.kpmg.com/xx/en/home/services/advisory/risk-consulting/crisis-planning-response-management-services.html

to determine which stores suffered the most, and reports could be made about average damage/loss across all stores. This data could be used to help Publix determine what steps it will need to take next. Using SAS in this type of situation would be much easier than physically going to all the stores and recording the damage/manually analyzing it.

D. Write a few paragraphs to your future public accounting partner explaining why your team should invest in the acquisition of and training in this tool. Explain how the tool will impact the staffing and scope of your future engagements.

Our team should consider using this tool for several reasons[12]:

- It is applicable to many industries, such as pharmaceuticals, retail, agriculture, education, banking, oil and gas, utilities, etc.
- There are quite a few training tools available to help employees and companies understand how to use SAS, including e-learning packages, tutorial videos, live web courses, etc.
- There are over ten different SAS products that can be used to specialize data collection and organization to fit the needs of every client, including products specifically designed for customer intelligence, data management, visual statistics, etc.

Since SAS is so easy to use, and learning/training is readily available, we will not need to replace old staff with new IT-savvy staff. It should be easy to teach everyone how to use

[12] "Analytics, Business Intelligence and Data Management." SAS, SAS Institute Inc., www.sas.com/en_us/home.html

SAS. We will likely need less staff, which will save our firm money and resources, due to the fact that data collection, organization, and reporting can be done very quickly through SAS. In addition, we can reach new industries that we have not worked with before. We will be able to advertise to outside markets and use our grasp of SAS to show that we have the capability to work with all types of industries. Therefore, we should invest in SAS due to its easy implementation, the possibility of expanding our client base, and the likelihood of reducing our labor costs.

Case Eight: Rite Aid Corporation

Introduction

This case focused on the long-term debts of Rite Aid Corporation, one of the largest pharmacy retailers in the nation. This case contained a six-page note (note 11) that provided a great deal of information about Rite Aid's indebtedness and credit agreements. Note: the dollar amounts in the case and in my answers are in thousands.

Question a. contained four parts, and it mainly asked conceptual questions about terms like "secured," "unsecured," "guaranteed," "senior," "fixed-rate," etc. To answer this question, I accessed note 11 and found helpful information on Investopedia.com. Questions b. – e. were process based, and these questions contained several parts each. These questions referenced specific notes and asked for calculations of interest payments, interest expenses, net book values, interest rates, etc. They also required the creation of various journal entries and an amortization schedule. Thus, I used my notes from my thesis course, my Intermediate textbook, and note 11 to answer these multi-step problems.

Due to my other accounting courses, I had some knowledge about long-term debt before I completed this case. For instance, I already knew how to create most of the journal entries and the amortization schedule required in this case. I also knew how to calculate most of the interest payments, interest expenses, and net book values. However, because Rite Aid's fiscal year ended in February, this case helped me learn more about accounting for debt when the fiscal year end is not December 31. Also, I knew very little about the concepts mentioned in part a., so answering that question really helped me enhance my debt knowledge. Overall, I believe that the additional

knowledge I gained from this case will be useful as I continue to learn about long-term debt in my classes and in my journey to becoming a public accountant.

A. Consider the various types of debt described in note 11, Indebtedness and Credit Agreement.

i. Explain the difference between Rite Aid's secured and unsecured debt. Why does Rite Aid distinguish between these two types of debt?

Rite Aid's secured debt is backed by a pledge of some sort of collateral. This means that if Rite Aid defaults on paying these debts, the bank can sell the collateralized items for money. Rite Aid lists various types of secured debt in note 11—including senior secured revolving credit facilities, senior secured credit facility term loans, senior secured notes, and secured other notes. Brief descriptions of the first two unique notes are provided below.

Senior secured revolving credit facilities result from a bank extending lines of credit to Rite Aid. These debts are backed by collateral of accounts receivable, inventory, and prescription files. When Rite Aid borrows under its lines of credit, it has to pay the bank interest (periodically) and the principal of the debt (by a certain date). Rite Aid also pays a fee on unused credit line amounts. This type of debt includes covenants that place restrictions on acquiring additional debt, paying dividends, selling assets, being involved in mergers/acquisitions, granting liens, and having excess cash amounts. This information is presented in note 11. Senior secured credit facility term loans also

represent lines of credit where Rite Aid has to pay interest. However, Rite Aid must make payments on these loans with proceeds from asset disposition, issuances of equity and debt, and excess cash flows.

Unsecured debt is not backed by any collateral. Thus, it is risker for the bank because if Rite Aid defaults on payments, the bank does not have any collateralized items to sell. However, for Rite Aid, unsecured debt is less risky because it will not lose assets if it cannot pay off this type of debt. Rite Aid distinguishes between these two types of debt so that users understand that some of Rite Aid's assets are at risk with secured debt. Also, investors and creditors want to know about Rite Aid's current debt structure/agreements before lending money to Rite Aid or investing in Rite Aid.

ii. What does it mean for debt to be "guaranteed"? According to note 11, who has provided the guarantee for some of Rite Aid's unsecured debt?

"Guaranteed" means that another entity will make payments on Rite Aid's debt if Rite Aid fails to do so. This type of debt exists because Rite Aid depends on distributions, dividends, and other payments from its subsidiaries to service payments for both secured and unsecured debt since Rite Aid has no direct operations to acquire these funds itself.

According to note 11, Rite Aid's wholly-owned subsidiaries provide the guarantees for some of Rite Aid's unsecured debt. These guaranteed, unsecured debts place covenant restrictions on Rite Aid in regard to paying dividends, buying/selling assets, making investments, granting liens, etc.

iii. What is meant by the terms "senior," "fixed-rate," and "convertible"?

The term "senior" signifies that a debt is first in line to be paid if a company has to liquidate its assets due to bankruptcy. [13] Therefore, senior secured debt would be paid first and then senior unsecured debt would be paid next if Rite Aid had to liquidate.

The term "fixed-rate" means that the interest rate stays the same throughout the debt's life.[14] For example, the interest rate of 6.875% for the senior notes due December 2028 remains constant and is not at risk of changing. Non-fixed-rate interest rates can change.

The term "convertible" means that debt can be converted into shares of common stock (equity). The debt's book value is given to the equity, so Rite Aid would not record a gain or loss with conversion. Conversion decreases debt and increases equity. Rite Aid has to pay a conversion fee if it converts its debt to equity.

iv. Speculate as to why Rite Aid has many different types of debt with a range of interest rates.

Rite Aid likely has debt diversity to reduce riskiness. If Rite Aid had all secured debt, it would risk losing large portions of assets, so having some unsecured debt reduces this risk. Also, varying interest rates help smooth out the effects of fluctuations. If Rite Aid only had one high interest rate for all its debts and was struggling to make interest payments, it likely would not be able to pay the full interest expense on any of its debts.

[13] https://www.investopedia.com/terms/s/seniordebt.asp
[14] https://www.investopedia.com/terms/f/fixedinterestrate.asp

However, if Rite Aid had some high and some low interest rates, it would probably be able to fully pay at least the interest payments of the lower interest-bearing debt. Also, diversification appeals to investors and creditors who do not want to become involved with a company that assumes great risk by having one large debt.

B. Consider note 11, Indebtedness and credit agreement. How much total debt does Rite Aid have at February 27, 2010? How much of this is due within the coming fiscal year? Reconcile the total debt reported in note 11 with what Rite Aid reports on its balance sheet.

Rite Aid's total debt at February 27, 2010 is shown in note 11 as $6,370,899. Of this amount, $51,502 is due within the coming fiscal year. Lease financing obligations represent rental payments that Rite Aid has to make on leased property, plant, or equipment. Reconciliation of the total debt reported in note 11 with what Rite Aid reports on its balance sheet follows in Figure 6 below.

Current maturities of long-term debt and lease financing obligations		$ 51,502
Long-term debt (excluding current maturities above)	+	6,185,633
Lease financing obligations (excluding current maturities above)	+	133, 764
Total debt		$ 6, 370, 899

Figure 6. Rite Aid Debt Reconciliation

C. Consider the 7.5% senior secured notes due March 2017.

i. What is the face value (i.e. the principal) of these notes? How do you know?

The principal/face value of these notes is $500,000. This amount appears in note 11. Other debts have unamortized discount amounts listed in parenthesis by their descriptions in note 11, but these notes do not. This means that the 2009 and 2010 carrying value of these notes is the face value. No discount exists to lower the face value.

ii. Prepare the journal entry that Ride Aid must have made when these notes were issued.

The journal entry that Rite Aid must have made when it issued these notes is described here and shown below. The entry increases cash (an asset) since Rite Aid received money. It also increases notes payable (a liability) since Rite Aid owes the bank the borrowed money. Net income is not affected here because no revenue or expense accounts are involved. A discount is not shown in the entry either since the notes were issued at face value.

Cash 500,000

Notes Payable 500,000

iii. Prepare the annual interest expense journal entry. Note that the interest paid on a note during the year equals the face value of the note times the stated rate (i.e., coupon rate) of the note.

The annual interest expense journal entry is described here and shown below. The interest expense is calculated by multiplying $500,000 (the face value) with 7.5% (stated interest rate shown in note 11). This equals $37, 500. The journal entry increases interest expense, which decreases net income. Also, it increases interest payable and has no effect on assets. A payable is credited instead of cash because the entry is recorded at Rite Aid's fiscal year end in February, but the actual interest payment likely does not occur until March.

Interest Expense 37,500

Interest Payable 37,500

iv. Prepare the journal entry that Rite Aid will make when these notes mature in 2017.

The journal entry that Rite Aid will make when these notes mature in 2017 is described here and shown below. This entry decreases the notes payable because Rite Aid paid off the principle amount it owed to the bank. The entry also decreases cash because Rite Aid paid cash for the notes. It has no effect on net income since expenses and revenues are not involved.

Notes Payable 500,000

Cash 500,000

D. Consider the 9.375% senior notes due December 2015. Assume that interest is paid annually.

i. What is the face value (or principle) of these notes? What is the carrying value (net book value) of these notes at February 27, 2010? Why do the two values differ?

The face value/principal of these notes is $410,00 as stated in parenthesis behind the note description in note 11. The carrying value/net book value of these notes as of February 27, 2010 is $405,951. These two values differ due to a discount on the notes. The carrying value is the difference between the $410,000 face value and the $4,049 unamortized (remaining) discount shown in parenthesis in note 11. The carrying value of the note is less than the face value because the discount (which represents the issuance of a note with a market rate that is higher than the stated rate), reduces the value of the note.

ii. How much interest did Rite Aid pay on these notes during the fiscal 2009?

Rite Aid paid $38,438 interest on these notes during fiscal 2009. This is calculated by multiplying the face value of the notes ($410,00) by the stated rate (9.375%) by time (12/12 months). This cash payment amount will be the same every year since the face value of the note and the stated interest rate do not change.

iii. Determine the total amount of interest expense recorded by Rite Aid on these notes for the year ended February 27, 2010. Note that there is a cash and a noncash portion to interest expense on these notes because they were issued at a discount. The noncash portion of interest expense is the amortization of the discount during the year (that is, the amount by which the discount decreased during the year.

The total interest expense recorded by Rite Aid on these notes for the year ended Feb 27, 2010 is $39,143. This is the total of the $38,438 cash payment from part ii. and the amortized discount on notes payable of $705. The amortized discount is found by taking the 2009 unamortized discount amount ($4,754) and subtracting the 2010 unamortized discount amount ($4,049) shown in note 11. The journal entry below clarifies the calculation of the interest expense amount, which is a plug in this scenario.

Interest Expense	39,143	
Cash		38,438
Discount on Notes Payable		705

iv. Prepare the journal entry to record interest expense on these notes for fiscal 2009. Consider both the cash and discount (noncash) portions of the interest expense from part iii. above.

The journal entry to record interest expense on these notes for fiscal 2009 is described here and shown below. Since Rite Aid uses straight-line amortization, the amortized discount on notes payable and the cash payment are the same every year. Thus, interest expense is the same every year. This entry increases interest expense, which decreases

net income. Cash is decreased because Rite Aid is paying for interest with cash. The discount on notes payable is amortized (decreased), which actually increases the carrying value of the notes.

Interest Expense 39,143

Cash 38,438

Discount on Notes Payable 705

v. Compute the total rate of interest recorded for fiscal 2009 on these notes.

The total rate of interest recorded for fiscal 2009 on these notes is 9.569%. This is found by dividing the interest expense by the beginning of the period carrying value. The beginning of the period carrying value for 2009, which would be the end of the period carrying value for 2008, is not known. However, the 2009 end of period carrying value (2010 beginning of period carrying value) is shown in note 11. We can use this information to find the interest rate used in 2010, which is the same rate for every year. From note 11, the 2010 beginning of period carrying value is $405,246. As indicated above in part iii., the 2010 interest expense is $39,143. The calculation below shows the computation of the interest rate:

$39,143 = effective interest rate x $405,246

Effective interest rate = 9.659%

E. Consider the 9.75% notes due June 2016. Assume that Rite Aid issued these notes on June 20, 2009 and that the company pays interest on June 30th of each year.

i. According to note 11, the proceeds of the notes at the time of issue were 98.2% of the face value of the notes. Prepare the journal entry that Rite Aid must have made when these notes were issued.

The journal entry that Rite Aid must have made when these notes were issued is described here and shown below. This entry increases cash by $402,620 ($410,000 face value times .982 discount) because that is the amount of cash Rite Aid borrows. Notes payable increases by $410,000 since that is the principal that Rite Aid owes to the bank. The difference between the face value of $410,000 and the cash (fair value) of the notes is a discount of $7,380. This entry increases the discount, which actually decreases the liability as shown below.

Cash	402,620	
Discount on Notes Payable	7,380	
Notes Payable		410,000

ii. At what effective annual rate of interest were these notes issued?

The effective annual rate of interest for these notes is $10.1212%. This can be calculated using the excel RATE formula and plugging in the following information:

nper (number of periods) =7 since the notes were issued in 2009 and are due in 2016

pmt (cash interest payment) = 39,975 ($410,000 face value x 9.75% rate)

pv (cash proceeds) = 402,620 (calculated in part i.)

fv (face value) = 410,000

iii. Assume that Rite Aid uses the effective interest rate method to account for this debt. Use the table that follows to prepare an amortization schedule for these notes. Use the last column to verify that each year's interest expense reflects the same interest rate even though the expense changes.

Table 14. Rite Aid Amortization Schedule

Date	Interest Payment	Interest Expense	Bond Discount Amortization	Net Book Value of Debt	Effective Interest Rate
30-Jun-09				$ 402,620.00	10.1212%
30-Jun-10	$39,975.00	$ 40,749.98	$ 774.98	403,394.98	10.1212%
30-Jun-11	39,975.00	40,828.41	853.41	404,248.39	10.1212%
30-Jun-12	39,975.00	40,914.79	939.79	405,188.18	10.1212%
30-Jun-13	39,975.00	41,009.91	1,034.91	406,223.08	10.1212%
30-Jun-14	39,975.00	41,114.65	1,139.65	407,362.73	10.1212%
30-Jun-15	39,975.00	41,230.00	1,255.00	408,617.73	10.1212%
30-Jun-16	39,975.00	41,357.02	1,382.02	409,999.75	10.1212%

iv. Based on the above information, prepare the journal entry that Rite Aid would have recorded February 27, 2010, to accrue interest expense on these notes.

The journal entry that Rite Aid would have recorded on February 27, 2010 to accrue interest expense on the notes is described here and shown below. Interest expense

increases by $27,167, which decreases net income. The interest expense is calculated by taking the $40,749.98 June 30, 2010 interest expense times 8/12, which represents the accrual of interest from June 30 (interest payment date) to February 27 (fiscal year end). Interest payable increases by $26,650 because the $39,975 interest payment shown above is multiplied by 8/12 as well. The discount is the difference between the interest expense and the interest payable. It can be calculated by multiplying $774.98 (June 30, 2010 discount amortized) by 8/12. The 8/12 fraction represents the time between the interest payment date and the fiscal year end.

Interest Expense	27,167	
Discount on Notes Payable		517
Interest Payable		26,650

v. Based on your answer to part iv., what would be the net book value of the notes at February 27, 2010?

Based on the answer to part iv., the net book value at February 27, 2010 on the notes should be $403,137. This is found by taking the June 30, 2010 beginning of period carrying value $402,620 (shown in part iii.) plus amortized discount of $517 (shown in the journal entry in part iv.) Amortized discount is added to the carrying value because amortized discount increases the carrying value of debt.

Case Nine: Merck & Co., Inc.

Introduction

This case focused on Merck & Co., Inc., a pharmaceutical company that works globally to enhance the healthiness of both humans and animals. In particular, this case was centered around Merck's stockholders' equity. Note: the case also asked questions about GlaxoSmithKline (another global pharmaceutical company), but we were instructed to only answer the questions presented below about Merck.

Questions a., c., and d. were conceptual and relatively straightforward. They asked about the amounts of Merck's authorized, issued, outstanding, and repurchased shares. They also asked analytical questions pertaining to companies' reasons for paying dividends and repurchasing shares. To answer these questions, I analyzed Merck's consolidated balance sheet and utilized my intermediate textbook. Questions e., g., and i., were process-based. These contained various requirements, such as calculations of dividend ratios and conceptual explanations of treasury stock. I used my intermediate textbook to answer the conceptual treasury stock questions and looked at Merck's financial statements and note 11 to answer the mathematical questions. Overall, I mainly utilized Merck's consolidated balance sheet, consolidated statement of cash flows, and stockholders' equity note since the case questions focused on payment of dividends and purchase of common shares of stock.

Before I completed this case, I understood stockholders' equity pretty well. I knew general concepts about dividends and treasury stock. However, this case has been beneficial because it has helped me reinforce equity concepts and strengthen my analytical skills. I believe that I will be able to use this growing body of knowledge in

upcoming accounting courses to continue enhancing my accounting skills for my future career.

A. Consider Merck's common shares.

i. How many common shares is Merck authorized to issue?

Merck is authorized to issue 5,400,000,000 shares of common stock. This amount is shown in the stockholders' equity section of Merck's consolidated balance sheet. This is the maximum number of shares of common stock that Merck can ever issue.

ii. How many common shares has Merck actually issued at December 31, 2007?

As of December 31, 2007, Merck has actually issued 2,983,508,675 shares of common stock. This is the number of common shares that Merck has sold to the public. The number of issued shares is also noted in the stockholders' equity section of Merck's consolidated balance sheet.

iii. Reconcile the number of shares issued at December 31, 2007, to the dollar value of common stock reported on the balance sheet.

The dollar value of common stock reported on the balance sheet is equal to the number of shares of common stock issued (2,983,508,675) multiplied by the par value of the common stock ($0.01 per share). Both of these amounts are shown in the stockholders'

equity section of Merck's consolidated balance sheet. This equals the $29,800,000 common stock dollar value reported at December 31, 2007.

iv. How many common shares are held in treasury at December 31, 2007?

According to the stockholders' equity section of Merck's balance sheet, there are 811,005,791 common shares held in treasury at December 31, 2007. These are shares of common stock that Merck has bought back from the public.

v. How many common shares are outstanding at December 31, 2007?

The number of common shares outstanding at December 31, 2007 is 2,172,502,884, which is the difference between the 2,983,508,675 shares issued and the 811,005,791 shares that Merck bought back. These outstanding shares are still held by the public.

vi. At December 31, 2007, Merck's stock price closed at $57.61 per share. Calculate the total market capitalization of Merck on that day.

The total market capitalization of Merck on December 31, 2007 is $125,157,891,100, which represents the dollar value of Merck's outstanding common stock. This is found by multiplying the stock price of $57.61 per share by the number of common shares outstanding (2,172,502,884).

C. <u>Why do companies pay dividends on their common or ordinary shares? What normally happens to a company's share price when dividends are paid?</u>

Companies pay dividends on their common or ordinary shares to give stockholders a portion of their profits. Paying dividends 1) incentivizes current stockholders to buy more of a company's stock, 2) incentivizes other stockholders to also purchase that company's stock, and 3) signals to the market that the company has strong cash flows and predictable earnings. When dividends are paid, a company's share price normally increases because dividends make a company's shares seem more attractive.

D. <u>In general, why do companies repurchase their own shares?</u>

There are several reasons why companies repurchase their own shares as listed below:

1) To increase earnings per share (EPS) and return on equity (ROE) by reducing the number of shares outstanding.

2) To decrease the likelihood of a takeover by reducing the number of outstanding shares. This in turn reduces the number of "owners" who could potentially take over the company.

3) To have shares available for stock compensation plans and business acquisitions.

4) To use excess cash efficiently.

E. Consider Merck's statement of cash flow and statement of retained earnings. Prepare a single journal entry that summarizes Merck's common dividend activity for 2007.

The following entry summarizes Merck's common dividend activity for 2007. The amount debited to retained earnings is found in Merck's consolidated statement of retained earnings. The $3,310,700,000 debit (decrease) to retained earnings represents the amount of dividends declared on common stock. The credit (decrease) to cash of $3,307,300,000 represents the actual cash paid out in the form of dividends. This amount is found in the statement of cash flows under the financing activities section. The difference between $3,310,700,000 and $3,307,300,000 is shown as a credit to dividends payable. This means that Merck's dividend liability increased.

Retained Earnings	3,310,700,000	
Dividends Payable		3,400,000
Cash		3,307,300,000

G. During 2007, Merck repurchased a number of its own common shares on the open market.

i. Describe the method Merck uses to account for its treasury stock transactions.

Note 11 presents information about stockholders' equity. In particular, it shows a summary of treasury stock transactions for 2007, 2006, and 2005. For each year, the beginning balances, purchases, reissuances, and ending balances of treasury stock are

shown with their relative cost amounts. Thus, Merck accounts for its treasury stock transactions using the cost method. This means that purchases and reissuances of shares are recorded at cost. The original price of the shares and the market price of the shares at any given point in time do not affect the treasury stock account.

ii. Refer to note 11 to Merck's financial statements. How many shares did Merck repurchase on the open market during 2007?

Based on note 11, Merck repurchased 26,500,000 shares on the open market during 2007. This amount can be found in the 2007 shares section. These repurchased shares cost a total of $1,429,700,000, which is also shown in note 11 under the 2007 cost section.

iii. How much did Merck pay, in total and per share, on average, to buy back its stock during 2007? What type of cash flow does this represent?

During 2007, Merck paid $1,429,700,000 in total to buy back its stock. This equates to a $53.95 per share cost ($1,429,700,000 total cost divided by 26,500,000 shares repurchased). The total cost of repurchase is shown in Merck's statement of cash flows in the financing activities section. It is a financing cash flow because it is an outflow of cash to reacquire common stock.

iv. Why doesn't Merck disclose its treasury stock as an asset?

Merck does not disclose its treasury stock as an asset because treasury stock is a contra-equity account (it decreases equity). An asset is something that a company owns, and Merck does not technically own the treasury stock because that would mean that it owns a part of itself. Also, treasury shares are simply shares that Merck has bought back. They are not asset items that will provide future economic benefits.

I. Determine the missing amounts and calculate the ratios in the tables below. For comparability, use dividends paid rather than dividends declared. Use the number of shares outstanding at year end for per-share calculations. What differences do you observe in Merck's dividend-related ratios across the two years?

Table 15. Merck Co. Equity Calculations

	Merck Co.	
	2007	**2006**
Dividends paid	$ 3,307,300,000.00	$ 3,322,600,000.00
Shares outstanding	2,172,502,884.00	2,167,785,445.00
Net income	$ 3,275,400,000.00	$ 4,433,800,000.00
Total assets	$ 48,350,700,000.00	$ 44,569,800,000.00
Operating cash flows	$ 6,999,200,000.00	$ 6,765,200,000.00
Year-end stock price	$ 57.61	$ 41.94
Dividends per share	$ 1.52	$ 1.53
Dividend yield (dividends per share to stock price)	0.03	0.04
Dividend payout (dividends to net income)	1.01	0.75
Dividends to total assets	0.07	0.07
Dividends to operating cash flows	0.47	0.49

Many of Merck's dividend-related ratios remain close to constant between the two years. For example, dividends per share and dividend yield decreased by $.01, dividends to total assets remained constant, and dividends to operating cash flows decreased by $.02. This reflects that Merck has a relatively stable financial position. Only the dividend payout ratio is significantly different between the two years. Merck's dividend payout ratio increased by $.26 from 2006 to 2007. This is because both dividends paid and net income decreased between these years.

Case Ten: State Street Corporation

Introduction

This case focused on the securities of State Street Corporation, a Boston-headquartered financial services company. State Street provides customers with brokerage/trading services, investment research and management, and short-term investment facilities. This case focused on State Street's trading, available-for-sale, and held-to-maturity securities.

Questions a. – c. were conceptual; these questions asked for general definitions of trading, available-for-sale, and held-to-maturity securities. They also asked for journal entries for each of these types of investments when dividends/interest is received and when fair value increases. Questions d. – g. were processed based. These questions asked about the year-end balance of each of the three types of securities. They also asked about the market values of these securities and any unrealized/realized holding gains (losses) associated with these securities. To answer the conceptual questions, I referred to my Intermediate textbook and my general understanding of the different types of securities. To answer the procedural questions, I analyzed State Street's consolidated income statement, consolidated balance sheet (which is called a statement of condition in this case), and the information provided in Note 4.

Since I had just learned about trading, available-for-sale, and held-to-maturity securities in my Intermediate course, I already possessed a foundational understanding of the recording of these securities. However, I did not have experience with the removal of unrealized pre-tax gains when securities are sold, so learning about this topic was very helpful. Overall, this case has given me more experience analyzing financial

statement/note information, and I will be able to use my developing skillset in my future audit internship.

A. Consider trading securities. Note that financial institutions such as State Street typically call these securities "Trading account assets."

i. In general, what are trading securities?

In general, trading securities are investments that are intended to be sold in a short period of time (usually 3 months or less). These securities are used to make profits on short-term differences in price. Trading securities can be debt (bonds) or equity (common stock) investments.

ii. How would a company record $1 of dividends or interest received from trading securities?

For debt trading securities, companies receive interest payments every period. These payments are recorded as follows:

Cash/Interest Receivable 1

Interest Revenue 1

Cash will be debited (increased) if interest is received on the payment date. Interest receivable will be debited (increased) if interest is received before the payment date. Interest revenue is credited (increased). If any discount or premium exists, amortization would be recorded in this entry as well. With a premium, the debt investments account

would be credited (decreased) to account for amortization. With a discount, the debt investments account would be debited (increased) to account for amortization.

For equity trading securities, companies may receive dividend payments every period. The recording of these payments depends on whether or not the investor has significant ownership stake in the investee. If the investor does not have significant influence, the fair value method is used to record the equity investment. The following entry displays how dividends are recorded under the fair value method:

Cash 1

Dividend Revenue 1

In the entry above, cash is debited (increased) and dividend revenue is credited (increased). If the investor has significant influence, the equity method is used to account for the equity securities. The following entry displays how dividends are recorded under the equity method:

Cash 1

Equity Investments 1

Here, cash is also debited (increased), but the equity investments account is credited (decreased). Under both the fair value and equity method, the amount debited and credited is equal to the total dividends paid by the investee times the portion of ownership the investor has in the investee.

iii. If the market value of trading securities increased by $1 during the reporting period, what journal entry would the company record?

For equity trading securities reported under the equity method, changes in market (fair) value are not recorded. However, for equity trading securities reported under the fair value method and for debt trading securities, changes in fair value are recorded. The journal entry to record an increase of $1 during the reporting period for these securities follows:

Fair Value Adjustment – Trading 1

Unrealized Holding Gain – Income 1

In this entry, the fair value adjustment account is an adjunct account to the trading securities account, meaning that it increases the value of assets on the balance sheet. The unrealized holding gain account is shown as a gain on the income statement.

B. Consider securities available-for-sale. Note that State Street calls these, "Investment securities available for sale."

i. In general, what are securities available-for-sale?

Available-for-sale securities are investments that are neither trading securities (held for short-term sale) nor held-to-maturity securities (sold at maturity). With available-for-sale securities, management does not know for sure if it will sell the investments in the short-term or hold them to maturity. Like trading securities, available-for-sale securities can be debt or equity investments.

ii. How would a company record $1 of dividends or interest received from securities available-for-sale?

For available-for-sale securities, the entries to record dividends (from equity investments) or interest received (from debt investments) are the same as those presented in question A. part ii. The journal entry to record interest received from debt available-for-sale securities is as follows:

Cash/Interest Receivable 1

Interest Revenue 1

The journal entry to record dividends received from equity available-for-sale securities reported using the fair value method is as follows:

Cash 1

Dividend Revenue 1

The journal entry to record dividends received from equity available-for-sale securities reported using the equity method is as follows:

Cash 1

Equity Investments 1

Explanations of these entries appear in question A. part ii.

iii. If the market value of securities available-for-sale increased by $1 during the reporting period, what journal entry would the company record?

As described in question A. part iii., changes in fair value are not recorded for equity investments reported using the equity method, but they are recorded for equity

available-for-sale securities reported using the fair value method and debt available-for-sale securities. The entry to record a $1 increase in the fair value of these securities is as follows:

Fair Value Adjustment – Available-For-Sale 1

Unrealized Holding Gains – Equity 1

Similar to the entry in A. part iii., a fair value adjustment account is debited (increased), and an unrealized holding gain account is credited (increased). However, the unrealized holding gain flows through equity and appears in the statement of comprehensive income because these are available-for-sale securities.

C. Consider securities held-to-maturity. Note that State Street calls these, "Investment securities held to maturity."

i. In general, what are these securities? Why are equity maturities never classified as held-to-maturity?

In general, held-to-maturity securities are debt investments that management has both the positive intent and the ability to hold to maturity. Equity securities are never classified as held-to-maturity because equity securities have no maturity date.

ii. If the market value of securities held-to-maturity increased by $1 during the reporting period, what journal entry would the company record?

For held-to-maturity securities, changes in fair value are not recorded. Held-to-maturity securities are recorded only at amortized cost (the acquisition cost adjusted for the amortization of discount or premium). Therefore, no journal entry would be made for the held-to-maturity securities when the fair value changes.

D. Consider the "Trading account assets" on State Street's balance sheet.

i. What is the balance in this account on December 31, 2012? What is the market value of these securities on that date?

The balance in the trading account assets (trading securities) account on December 31, 2012 is $637,000,000. Since these securities are reported at fair (market) value, the market value of these securities on December 31, 2012 is also $637,000,000.

ii. Assume that the 2012 unadjusted trial balance for trading account assets was $552 million. What adjusting journal entry would State Street make to adjust this account to market value? Ignore any income tax effects for this part.

The adjusting journal entry would be (in millions):

Fair Value Adjustment – Trading	85	
Unrealized Holding Gain – Income		85

The $85,000,00 adjustment is the difference between the unadjusted balance ($552,000,000) and the new fair value ($637,000,000) of the trading account assets. The fair value increase causes an unrealized holding gain in the income statement and an increase in the value of assets (from the fair value adjustment debit) on the balance sheet.

E. Consider the balance sheet account "Investment securities held to maturity" and the related disclosures in Note 4.

i. What is the 2012 year-end balance in this account?

The 2012 year-end balance in this account is $11,379,000,000. This represents the amortized cost of the held-to-maturity securities.

ii. What is the market value of State Street's investment securities held to maturity?

The market value of State Street's investment securities held to maturity is $11,661,000,000. This amount is shown in the balance sheet in parenthesis besides the account title.

iii. What is the amortized cost of these securities? What does "amortized cost" represent? How does amortized cost compare to the original cost of the securities?

The amortized cost of these securities is the $11,379,000,000 year-end balance shown in the 2012 portion of the balance sheet. Amortized cost represents the acquisition cost

adjusted for the amortization of discount or premium. If the securities were purchased at a premium (above par value), amortized cost would be less than the original cost of the securities. If the securities were purchased at a discount (below par), the amortized cost would be greater than the original cost.

iv. What does the difference between the market value and the amortized cost represent? What does the difference suggest about how the average market rate of interest on held-to-maturity securities has changed since the purchase of the securities held by State Street?

The difference between the market value of the held-to-maturity securities ($11,661,000,000) and the amortized cost ($11,379,000,000) represents an increase in the securities' fair value of $282,000,000. The difference suggests that the average market rate of interest on held-to-maturity securities has decreased since the purchase of the securities. When market rates decrease, the fair value of securities increases.

F. Consider the balance sheet account "Investment securities available for sale" and the related disclosures in Note 4.

i. What is the 2012 year-end balance in this account? What does this balance represent?

The year-end balance in this account is $109,682,000,000; this represents the fair value of the securities since available-for-sale securities are recorded at fair value.

ii. What is the amount of net unrealized gains or losses on the available-for-sale securities held by State Street at December 31, 2012? Be sure to note whether the amount is a net gain or loss.

The amount of net unrealized gains or losses on the available-for-sale securities at December 31, 2012 is $1,119,000,000 unrealized gain. This is found by netting the $2,001,000,000 unrealized gain with the $882,000,000 unrealized loss shown in Note 4.

iii. What was the amount of net realized gains (losses) from sales of available-for-sale securities for 2012? How would this amount impact State Street's statements of income and cash flows for 2012?

The amount of net realized gains (losses) from sales of available-for-sale securities for 2012 was $55,000,000. This is found by netting out the $101,000,000 realized gain with the $46,000,000 realized loss shown on the second page of Note 4. This realized gain would increase net income in the income statement. In the statement of cash flows, the realized gain would be deducted from net income if State Street uses the indirect method.

G. State Street's statement of cash flow for 2012 (not included) shows the following line items in the "Investing Activities" section relating to available-for-sale securities (in millions):

Proceeds from sales of available-for-sale securities	$5,399
Purchases of available-for-sale securities	$60,812

i. Show the journal entry State Street made to record the purchase of available-for-sale securities for 2012.

The journal entry that State Street would have made to record the purchase of available-for-sale securities for 2012 follows (in millions):

Investment in Available-For-Sale Securities	60,812	
Cash		60,812

Investment in available-for-sale securities is debited (increased) because State Street purchased these securities. Cash is credited (decreased) because we assume that they paid for the securities in cash.

ii. Show the journal entry State Street made to record the sale of available-for-sale securities for 2012. Note 13 (not included) reports that the available-for-sale securities sold during 2012 had "unrealized pre-tax gains of $67 million as of December 31, 2011." Hint: be sure to remove the current book-value of these securities in your entry.

The journal entry State Street would have made to record the sale of available-for-sale securities for 2012 is shown below (in millions).

Cash	5,399	
Unrealized Holding Gain	67	
Investment in Available-For-Sale Securities		5,411
Realized Gain on Sale of Available-For-Sale Securities		55

Cash is debited (increased) by the amount of the proceeds from the sale. This number is given in part i. The unrealized holding gain account is debited (decreased) for the amount of the given pre-tax gain at the end of December 31, 2011. The realized gain account is credited (increased) because there is a gain on the sale. The amount of the realized gain is provided in the 2012 portion of the income statement, and it can also be calculated using information from Note 4. This calculation is shown in question F. part iii. Because State Street sold these securities, the investment account is credited (decreased) by an amount that balances out the journal entry. This is known as a plug figure.

iii. Use the information in part g. ii to determine the original cost of the available-for-sale securities sold during 2012.

Based on the journal entries in question G. part ii., the original cost of the available-for-sale securities sold during 2012 was $5,411,000,000. Using the journal entry, this is calculated by adding $5,399,000,000 (the debit to cash) with $67,000,000 (the debit to unrealized holding gain) and then subtracting $55,000,000 (the credit to realized gain).

Case Eleven: ZAGG Inc.

Introduction

This case focused on ZAGG Inc. ZAGG is a publicly traded company that produces mobile device accessories, such as shields for wristwatches, headphone cases, cell phone screen protectors, etc. In particular, this case asked general questions about deferred income taxes and specific questions about ZAGG's reporting of deferred income taxes.

Questions a., b., d., and e. were conceptual; these questions asked for definitions and examples of permanent tax differences, temporary tax differences, statutory rate, effective rate, deferred tax assets, deferred tax liabilities, and deferred tax valuation allowance. To answer these questions, I consulted my Intermediate textbook. Question c. was also conceptual, but this question asked why income tax expense is composed of a current and deferred portion. To answer this question, I consulted the FASB Accounting Standards Codification and my Intermediate textbook. Question f. was procedural. This multi-part question asked for ZAAG's 2012 journal entry to record income tax expense. It also asked for the calculation of the statutory rate and for an explanation of where ZAGG's deferred tax asset appears on the balance sheet. To answer this question, I analyzed ZAGG's financial statements and Note 8.

I just recently learned about deferred income taxes in my Intermediate course, so I did not really have a strong grasp of the concepts when I started the case. However, after completing the case, I think that I now have a stronger understanding of items like deferred tax assets, deferred tax liabilities, deferred income tax valuation allowance, etc. This knowledge will help me with my next Intermediate test and my future tax

classes. I will likely also use my understanding of deferred income taxes when I begin my audit career with a public accounting firm.

A. Describe what is meant by the term book income? Which number in ZAGG's statement of operation captures this notion for fiscal 2012? Describe how a company's book income differs from its taxable income.

The term "book income" is synonymous with pretax financial income. It is reported on companies' income statements in accordance with GAAP. Book income is thus the amount of income a company has made before taxes are taken out. In ZAAG's consolidated statement of operations, book income is $23,898,000, and it is labeled as "income before provision for income taxes."

Book income is determined by GAAP standards and appears on companies' income statements. Book income determines income tax expense. On the other hand, taxable income is computed in accordance with the Internal Revenue Code, and it appears on tax returns. Taxable income determines income taxes payable. Often times, book income and taxable income do not equal due to temporary and permanent differences.

B. In your own words, define the following terms:

i. Permanent tax differences (also provide an example)

Permanent tax differences are those that affect pretax financial income (book income) but not taxable income or that affect taxable income but not pretax financial income. An

example of a permanent difference would be a fine from the EPA. This fine (expense) would be deducted from revenues in the income statement, but it would not be tax deductible on the tax return. Thus, it affects pretax financial income but not taxable income.

ii. Temporary tax difference (also provide an example)

Temporary tax differences are those that affect pretax financial income and taxable income at different times. Temporary tax differences consist of future taxable amounts (amounts that will be taxed in the future) and future deductible amounts (amounts that will reduce taxes in the future). For example, a future taxable amount arises when sales are accounted for under the cash basis for the tax return but are reported under the accrual basis for the income statement. In this scenario, revenues in the income statement reflect all revenues from the satisfaction of performance obligations, but revenues on the tax return reflect only those that have generated cash. Thus, taxable income/income taxes payable is lower (due to lower revenues) than pretax financial income/income tax expense. In the future, this temporary difference will be taxed as cash is received for the revenue.

iii. Statutory tax rate

The statutory tax rate is mandated by law. Statutory tax rates often differ from country to country. The statutory tax rate is the rate used to actually calculate income tax expense and income taxes payable.

iv. Effective tax rate

The effective tax rate is calculated as income tax expense divided by pretax financial income. Thus, this rate represents the actual percentage of pretax financial income that is paid as income tax expense. The statutory and effective tax rates rarely equal due to temporary differences and differences in statutory rates from country to country.

C. Explain in general terms why a company reports deferred income taxes as part of their total income tax expense. Why don't companies simply report their current tax bill as their income tax expense?

According to section 740 of the FASB Accounting Standards Codification, deferred tax expense (or benefit) is the change during the year in deferred tax liabilities and assets. A deferred tax liability results from having future taxable amounts, and a deferred tax asset results from having future deductible amounts. When companies report total income tax expense (benefit), they sum deferred income tax expense/benefit (as the net change of deferred tax liabilities and assets) with current income tax expense. An entry to record total income tax expense when there is an increase in both the deferred tax asset and deferred tax liability accounts follows:

Income Tax Expense	xx	
Deferred Tax Asset	xx	
Deferred Tax Liability		xx
Income Taxes Payable		xx

As the journal entry shows, income tax expense (benefit) is composed of the net change of deferred tax assets and deferred tax liabilities plus income taxes payable, which represents the current tax expense. Income taxes payable is calculated by multiplying taxable income by the tax rate.

Companies report deferred income taxes as part of their total income tax expense amount because even though deferred income tax expense (benefit) is linked to future taxable (deductible) amounts, it arises from current methods of accounting. Thus, it should impact the current income statement and the reporting amount of income tax expense.

If companies only reported their current tax bill as total income tax expense (benefit), they would overstate or understate the true amount of income tax expense. For instance, if deferred tax benefit was not included in income tax expense, income tax expense would be overstated. If deferred tax expense was not included in income tax expense, income tax expense would be understated. Thus, both the current and deferred portions of income tax expense need to be accounted for so that financial statements are accurate.

Also, if a company does not include deferred tax expense (benefit) in its calculation of income tax expense (benefit), it fails to recognize the changes in some of its assets and liabilities since deferred tax expense (benefit) is the net change in deferred tax assets and deferred tax liabilities. If changes in these assets and liabilities are not taken into account, the income statement is not faithfully representational. This is because the

amount of income tax expense would be incorrect, which would distort net income and potentially mislead users.

D. Explain what deferred income tax assets and deferred income tax liabilities represent. Give an example of a situation that would give rise to each of these items on the balance sheet.

Deferred income tax assets represent an increase in future deductible (saved) taxes due to temporary differences that result in future deductible amounts. This account is reported in the balance sheet as a noncurrent asset. This type of situation would occur when a company receives cash rental payments in advance. On the tax return, revenue would increase (causing taxable income and income taxes payable to also increase) when the cash is received in advance. However, on the income statement, revenue would not be reported until the performance obligation is actually satisfied. The company would owe and pay a higher tax expense (according to the tax return) than the tax expense recorded on the income statement.

Deferred tax liabilities represent an increase in future taxes payable due to temporary differences that result in future taxable amounts. This account is reported on the balance sheet as a noncurrent liability. This type of situation would occur when an accelerated depreciation method is used for tax purposes while the straight-line method is used for financial reporting purposes. This would cause depreciation expense on the tax return to be higher, which would lower taxable income and income taxes payable

below the income tax expense reported on the income statement. Thus, the company would owe and pay less in taxes than it reports.

E. Explain what a deferred income tax valuation allowance is and when it should be recorded.

A deferred income tax valuation allowance is a contra account to the deferred tax asset account. This account should be recorded when it is more likely than not that the company will not realize some or all of its deferred tax asset. The balance in this account is deducted from the deferred tax asset balance on the balance sheet to show the net realizable value of the deferred tax asset account. The net realizable value is the amount of cash that the company will ultimately realize. The entry to record the deferred income tax valuation allowance is shown below.

Income Tax Expense xx

Allow. to Reduce Deferred Tax Asset to Expected Realizable Value xx

Since an increase in the deferred tax asset account decreases income tax expense, a decrease in the deferred tax asset account (through the valuation allowance) causes an increase in income tax expense. Thus, income tax expense is debited (increased) and the valuation allowance account is credited (increased) to reduce the balance of the deferred tax asset.

F. Consider the information disclosed in Note 8 – Income Taxes to answer the following questions:

i. Using information in the first table in Note 8, show the journal entry that ZAGG recorded for the income tax provision in fiscal 2012?

The journal entry that ZAGG recorded for the income tax provision in fiscal 2012 is shown below (in thousands).

Income Tax Expense 9,393

Deferred Tax Asset 8,293

Income Taxes Payable 17,686

The $9,393,000 debit to income tax expense is shown in the statement of operations (income statement) as "income tax provision." The $17,686,000 credit to income taxes payable is represented in Note 8, and it is called "total current." The difference between the debit to income tax expense and the credit to income taxes payable is the net change in deferred tax assets and deferred tax liabilities. This $8,293,000 amount is also shown in Note 8 and is labeled as "Total deferred."

ii. Using the information in the third table in Note 8, decompose the amount of "net deferred income taxes" recorded in income tax journal entry in part f. i. into its deferred income tax asset and deferred income tax liability components.

The decomposed journal entry of the entry shown in part i. follows (in thousands):

Income Tax Expense 9,393

Deferred Tax Asset 8,002

Deferred Tax Liability 291

Income Taxes Payable 17,686

The amount debited to income tax expense, and the amount credited to income taxes payable were described in part i. Based on the third table in Note 8, the debit to the deferred tax asset account is calculated by taking the 2012 deferred tax asset balance ($14,302,000) and subtracting the 2011 deferred tax asset balance ($6,300,000). This represents the change (an increase) in the deferred tax asset account. To calculate the amount debited to deferred tax liability, take the 2012 deferred tax liability balance ($794,000) and subtract the 2011 deferred tax liability balance ($1,086,000). Since the ending balance is lower than the beginning balance, the deferred tax liability decreased, and this is shown with the debit to the deferred tax liability account. In part i., the debits to deferred tax asset ($8,002,000) and deferred tax liability ($291,000) were combined in a net deferred tax asset debit (since the deferred tax asset amount is higher).

iii. The second table in Note 8 provides a reconciliation of income taxes computed using the federal statutory rate (35%) to income taxes computed using ZAGG's effective tax rate. Calculate ZAGG's 2012 effective tax rate using the information provided in their income statement. What accounts for the difference between statutory rate and ZAGG's effective tax rate?

ZAAG's 2012 effective tax rate is 39.3%. This is calculated by taking the 2012 income tax expense ($9,393,000) divided by the 2012 pretax financial income ($23,898,000). Both of these amounts are shown in the statement of operations. ZAAG's effective tax rate is higher than the 35% statutory rate due to the temporary differences discussed in question F. Also, as shown in Note 8, there is a permanent difference (a non-deductible expense) of $341,000 in 2012, which also likely influences the difference in the two rates.

iv. According to the third table in Note 8 – Income Taxes, ZAGG had a net deferred income tax asset balance of $13,508,000 at December 31, 2012. Explain where this amount appears on ZAGG's balance sheet.

The $13,508,000 net deferred income tax asset balance at December 31, 2012 appears as two separate line items in the balance sheet. $6,912,000 of this net amount is reported as a current asset, while the other $6,596,000 is reported as a noncurrent asset. Both amounts are labeled as "deferred income tax assets."

Case Twelve: Apple Inc.

Introduction

This case focused on Apple Inc., a multinational technology company with operations across the globe. Apple Inc. manufactures and sells mobile devices, software packages, personal computers, etc. In particular, this case dealt with general revenue recognition and Apple's own revenue recognition techniques.

Questions a. – e. were conceptual, and they asked for definitions of revenues and gains, descriptions of the FASB's and Apple's revenue recognition criteria, and explanations of the issues with accounting for multiple-element contracts. Also, question e. asked about the incentives that may influence managers to make self-serving revenue recognition choices. To answer these questions, I consulted my Intermediate textbook and Note 1 to Apple's financial statements. I also used my own personal knowledge to answer the questions. Question f. was procedural and focused on the proper timing of revenue recognition for the sale of different Apple items. I used the FASB Accounting Standards Codification and my general understanding of revenue recognition principles to guide my answers to the various parts of this question.

I learned about the new ASC 606 revenue recognition standard in my Intermediate course earlier in the semester. However, this case beneficially helped refresh my memory and forced me to think more specifically about the unique revenue recognition issues that each company deals with. I think that my understanding of revenue recognition concepts will come in handy as I dig deeper into my major courses and prepare to be an audit intern next spring. Revenue recognition seems to be a murky

subject area requiring a great deal of judgement, so I think that it is crucial that I continue to build my knowledge on this topic.

A. In your own words, define "revenues." Explain how revenues are different from "gains."

Revenues are inflows of assets or settlements of liabilities that stem from companies providing goods/services. Revenues result from a company's ongoing central operations, while gains result from peripheral (incidental) events. For instance, if a shoe company sells a pair of shoes for $20, the $20 would be considered revenue because selling shoes is the company's main operation. If the shoe company sells one of its cash registers for an amount that is $100 higher than the register's book value, the $100 would be considered a gain because selling cash registers is not one of the shoe company's central activities.

B. Describe what it means for a business to "recognize" revenues. What specific accounts and financial statements are affected by the process of revenue recognition? Describe the revenue recognition criteria outlined in the FASB's Statement of Concepts No. 5.

When a business recognizes revenues, it is recording the effects of satisfying performance obligations within contracts. The amount of revenue recorded is the amount of the consideration the company receives or expects to receive in exchange for the goods/services (performance obligations) it provides.

Revenue recognition affects various accounts and financial statements. The general recognition of revenue can be illustrated with the following entry examples:

Cash	xx	
Sales Revenue		xx
Interest Receivable	xx	
Interest Revenue		xx
Unearned Rent Revenue	xx	
Rent Revenue		xx

With the first entry, revenue would increase on the income statement, which would cause net income to increase the retained earnings account in the statement of stockholders' equity and the balance sheet. The cash balance on the balance sheet would increase, and the statement of cash flows would be affected as well.

With the second entry, revenue and net income on the income statement would again increase, and so would retained earnings on the statement of stockholders' equity and the balance sheet. The interest receivable increase would be reflected in the asset side of the balance sheet.

With the last entry, revenue and net income on the income statement would increase, which would again increase the retained earnings balance in the statement of stockholders' equity and balance sheet. Unearned rent revenue is a liability account; thus, in the third entry, liabilities would decrease as would be reflected on the balance sheet. Overall, revenue recognition mainly deals with asset, liability, and revenue accounts, but it affects many financial statements.

There are five criteria/guidelines that publicly traded companies must follow when recognizing revenue under the FASB's ASC 606. These guidelines are described and listed below:

1. Identify contracts with customers. Contracts are oral or written agreements between a company and its customers. These create rights and obligations for both parties. A company has the right to receive consideration when it satisfies the performance obligations within the contract.

2. Identify the separate performance obligations in the contract. A company has to figure out whether providing goods/services constitute one combined performance obligation or several individual performance obligations.

3. Determine the transaction price. This is the amount of consideration that a company expects to receive from satisfying its performance obligations.

4. Allocate the transaction price among the separate performance obligations. This allocation is based on the relative fair values of the goods or services constituting the performance obligations.

5. Recognize revenue when each performance obligation is satisfied. This occurs when a customer has obtained control of the good or service.

C. Refer to the Revenue Recognition discussion in Note 1. In general, when does Apple recognize revenue? Explain Apple's four revenue recognition criteria. Do they appear to be aligned with the revenue recognition criteria you described in part b, above?

In general, Apple recognizes revenue when it has satisfied a performance obligation. Apple's four revenue recognition criteria are 1) there is evidence that an arrangement exists, 2) delivery has occurred, 3) the sales price is fixed or determinable, and 4) collection is probable. These criteria do appear to align with the revenue recognition guidelines established by the FASB and discussed in part b. Explanations of Apple's criteria and how they align with the FASB's guidelines appear below.

1. There is evidence that an arrangement exists. This criterion is extremely similar to the first FASB guideline for revenue recognition in which a contract must first be identified. An "arrangement" is basically the same thing as a contract: it establishes rights and obligations between Apple and its customers.

2. Delivery has occurred. This criterion aligns with the FASB's last guideline about recognizing revenue when performance obligations are satisfied. By delivering a product/service (giving control to the customer), Apple is satisfying a performance obligation.

3. The sales price is fixed or determinable. This criterion aligns with the third FASB revenue recognition guideline about determining the transaction price. The sales (transaction) price has to be easily determinable for Apple to figure out the amount of consideration it expects to receive from satisfying its performance obligations.

4. Collection is probable. This criterion does not seem to directly tie to a particular FASB guideline, but it does relate to the first and last criteria pertaining to contracts. If a contract (agreement) exists, then payment is probable when Apple satisfies its performance obligations because Apple has a right to receive consideration for providing goods or services to its customers.

D. What are multiple-element contracts and why do they pose revenue recognition problems for companies?

Multiple-element contracts are contracts regarding the sale of multiple goods or services. For instance, in Note 1, Apple describes that it has multiple-element contracts when it sells tangible products that have essential software on them/will have essential software on them in the future. These types of contracts pose revenue recognition issues for companies because it is hard to determine what the specific performance obligations are. Apple has to determine whether it has just one performance obligation when it sells a phone with software/future software, or if it has multiple performance obligations (one for the phone and a separate one for all the software, one for the phone with current software and a separate one for the future software, etc.)

E. In general, what incentives do managers have to make self-serving revenue recognition choices?

Managers have several incentives to make self-serving revenue recognition choices. First, if a manager's bonus is tied to his/her company's or department's revenues/net

income, he/she may be inclined to recognize revenues before performance obligations are actually satisfied. Also, managers may be incentivized by pressures from stakeholders. To make the company look financially stronger to present and potential investors, lenders, and creditors, managers may try to recognize higher or earlier revenues than they should. On the other hand, managers may also be incentivized to reduce the amount of revenue reported for a period. This may happen if a company has volatile revenues, and management wants to smooth out revenue streams to make the company appear more stable.

F. Refer to Apple's revenue recognition footnote. In particular, when does/should the company recognize revenue for the following types of sales?

i. iTunes songs sold online.

According to Note 1, Apple recognizes revenue from the sale of iTunes songs online when users purchase the songs. This treatment seems to align with the FASB guidelines. In ASC 606-10-25-21, the FASB states that a company should recognize revenue when it transfers a good or service to a customer so that the customer has control of the asset. When customers purchase songs, they immediately possess them. Thus, Apple should recognize revenue when customers purchase the songs from iTunes.

ii. Mac-branded accessories such as headphones, power adaptors, and backpacks sold in the Apple stores. What if the accessories are sold online?

For mac-branded accessories such as headphones, power adaptors, and backpacks sold in the Apple stores, Apple should recognize revenue when the sale occurs because that is the point in time in which control of the items has passed to the customer. According to ASC 606-10-25-25, the customer controls the items because he/she holds them and can direct the usage of them. If the accessories are sold online, Apple should recognize revenue when legal title of the goods passes from Apple to the customer. Once title passes, the customer can direct the usage of the items, and Apple has a right of payment for the items; these facts again indicate passage of control according to ASC 606-10-25-30.

iii. iPods sold to a third-party reseller in India.

Apple should recognize revenue from the sale of iPods to a third-party reseller in India when the reseller purchases the iPods. If the reseller physically buys the iPods, then it holds them and can sell or exchange them. These are indicators that control has passed to the reseller in accordance with ASC 606-10-25-25. If the reseller orders the iPods online, revenue should be recognized when legal title of the iPods passes to the reseller. This aligns with ASC 606-10-25-30's list of control passage indicators.

iv. Revenue from gift cards.

Apple should recognize revenue from gift cards when the gift cards are purchased (not when they are used). This is because the point of purchase is when the customer possesses the gift card and can direct its usage (use it to buy something from Apple). According to ASC 606-10-25-25, control has passed to the customer at this time, so revenue should be recognized accordingly.

APPENDICES

Appendix A

Table 16. Home Heaters Part A Basic Transactions

Home Heaters											
Part A: Recording Basic Transactions											
				Assets		=		Liabilities	+	Equity	
	Cash	Accounts Receivable	Inventory	Land	Building	Equipment	Accounts Payable	Note Payable	Interest Payable	Common Stock	Retained Earnings
No. 1	$ 160,000									$ 160,000	
No. 2	400,000							$ 400,000			
No. 2									$ 21,000		-$ 21,000
No. 3	- 420,000			$ 70,000	$ 350,000						
No. 4	- 80,000					$ 80,000					
No. 5			$ 239,800				$ 239,800				
No. 6		$ 398,500									398,500
No. 7	299,100	- 299,100									
No. 8	- 213,360						- 213,360				
No. 9	- 41,000							- 20,000	- 21,000		
No.10	- 34,200										- 34,200
No. 11	- 23,200										- 23,200
No. 12									6,650		- 6,650
Balances	$ 47,340	$ 99,400	$ 239,800	$ 70,000	$ 350,000	$ 80,000	$ 26,440	$ 380,000	$ 6,650	$ 160,000	$ 313,450

Table 17. Home Heaters Part A Trial Balance

Home Heaters Part A: Trial Balance		
	Debits	Credits
Cash	$ 47,340	
Accounts Receivable	99,400	
Inventory	239,800	
Land	70,000	
Building	350,000	
Equipment	80,000	
Accounts Payable		$ 26,440
Note Payable		380,000
Interest Payable		6,650
Common Stock		160,000
Dividend	23,200	
Sales		398,500
Other Operating Expenses	34,200	
Interest Expense	27,650	
Total	$ 971,590	$ 971,590

Appendix B

Table 18. Glenwood Heating, Inc. Part B Additional Information

Glenwood Heating, Inc.									
Part B: Recording Additional Information									
				Assets					
Transaction	**Cash**	**Accounts Receivable**	**Allowance for Bad Debts**	**Inventory**	**Land**	**Building**	**Accumulated Depreciation Building**	**Equipment**	**Accumulated Depreciation Equipment**
Balances: Part A	$ 47,340	$ 99,400		$ 239,800	$ 70,000	$ 350,000		$ 80,000	
Part B (1) Bad Debts			$ 994						
Part B (2) COGS				- 177,000					
Part B (3) Depreciation									
Building							$ 10,000		
Equipment									$ 9,000
Part B (4) Equipment	- 16,000								
Rental Payment									
Part B (5) Income Tax	- 30,914								
Balances	$ 426	$ 99,400	$ 994	$ 62,800	$ 70,000	$ 350,000	$ 10,000	$ 80,000	$ 9,000

	Liabilities		**Stockholders' Equity**	
	Accounts Payable	**Interest Payable**	**Common Stock**	**Retained Earnings**
Balances: Part A	$ 26,440	$ 6,650	$ 160,000	$ 313,450
Part B (1) Bad Debts				- 994
Part B (2) COGS				- 177,000
Part B (3) Depreciation				
Building				- 10,000
Equipment				- 9,000
Part B (4) Equipment				- 16,000
Rental Payment				
Part B (5) Income Tax				- 30,914
Balances	$ 26,440	$ 6,650	$ 160,000	$ 69,542

Table 19. Glenwood Heating, Inc. Part B Trial Balance

Glenwood Heating, Inc. **Part B: Trial Balance**		
	Debits	**Credits**
Cash	$ 426	
Allowance for Bad Debts		$ 994
Accounts Receivable	99,400	
Inventory	62,800	
Land	70,000	
Building	350,000	
Accumulated Depreciation - Building		10,000
Equipment	80,000	
Accumulated Depreciation - Equipment		9,000
Accounts Payable		26,440
Interest Payable		6,650
Note Payable		380,000
Common Stock		160,000
Dividend	23,200	
Sales		398,500
Cost of Goods Sold	177,000	
Other Operating Expenses	34,200	
Bad Debt Expense	994	
Depreciation Expense - Building	10,000	
Depreciation Expense - Equipment	9,000	
Rent Expense	16,000	
Interest Expense	27,650	
Provision for Income Tax	30,914	
Total	$991,584	$991,584

Appendix C

Table 20. Eads Heater, Inc. Part B Additional Information

Eads Heater, Inc.
Part B: Recording Additional Information

						Assets					
Transaction	Cash	Accounts Receivable	Allowance for Bad Debts	Inventory	Land	Building	Accumulated Depreciation Building	Equipment	Accumulated Depreciation Equipment	Leased Equipment	Accumlated Depreciation Lease
Balances: Part A	$ 47,340	$ 99,400		$ 239,800	$ 70,000	$ 350,000		$ 80,000			
Part B (1) Bad Debts			$ 4,970								
Part B (2) COGS				- 188,800							
Part B (3) Depreciation											
Building							$ 10,000				
Equipment									$ 20,000		
Part B (4) Equipment											$ 11,500
Lease										$ 92,000	
Lease Payment	- 16,000										
Lease Depreciation											
Part B (5) Income Tax	- 23,505										
Balances	$ 7,835	$ 99,400	$ 4,970	$ 51,000	$ 70,000	$ 350,000	$ 10,000	$ 80,000	$ 20,000	$ 92,000	$ 11,500

		Liabilities		Stockholders' Equity		
	Accounts Payable	Interest Payable	Notes Payable	Lease Payable	Common Stock	Retained Earnings
Balances: Part A	$ 26,440	$ 6,650	$ 380,000		$ 160,000	$ 313,450
Part B (1) Bad Debts						- 4,970
Part B (2) COGS						- 188,800
Part B (3) Depreciation						
Building						- 10,000
Equipment						- 20,000
Part B (4) Equipment						
Lease				$ 92,000		
Lease Payment				- 8,640		- 7,360
Lease Depreciation						- 11,500
Part B (5) Income Tax						- 23,505
Balances	$ 26,440	$ 6,650	$ 380,000	$ 83,360	$ 160,000	$ 47,315

Table 21. Eads Heater, Inc. Part B Trial Balance

Eads Heater, Inc.			
Part B: Trial Balance			
	Debits		**Credits**
Cash	$ 7,835		
Accounts Receivable	99,400		
Allowance for Bad Debts			$ 4,970
Inventory	51,000		
Land	70,000		
Building	350,000		
Accumulated Depreciation - Building			10,000
Equipment	80,000		
Accumulated Depreciation - Equipment			20,000
Leased Equipment	92,000		
Accumulated Depreciation- Leased Equipment			11,500
Accounts Payable			26,440
Interest Payable			6,650
Note Payable			380,000
Lease Payable			83,360
Common Stock			160,000
Dividend	23,200		
Sales			398,500
Cost of Goods Sold	188,800		
Other Operating Expenses	34,200		
Bad Debt Expense	4,970		
Depreciation Expense - Building	10,000		
Depreciation Expense - Equipment	20,000		
Depreciation Expense - Leased Equipment	11,500		
Interest Expense	35,010		
Provision for Income Tax	23,505		
Total	$ 1,101,420		$ 1,101,420